

TECHNICAL BASIS FOR TIER I OPERATING PERMIT

DATE: August 2, 2002

PERMIT WRITER: Darrin Mehr

PERMIT COORDINATOR: Bill Rogers

SUBJECT: Technical Analysis for Tier I Operating Permit No. 031-00017
TI-9507-135-1, Tesoro Refining and Marketing, Burley Petroleum Marketing Terminal, Burley
Final Tier I Operating Permit

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| Permittee: | Tesoro Refining and Marketing Company |
| Permit Number: | 031-00017 |
| Air Quality Control Region: | 063 |
| AIRS Facility Classification: | A |
| Standard Industrial Classification: | 5171 |
| Zone: | 12 |
| UTM Coordinates: | X:277.511 km; Y:4710.5 km |
| Facility Mailing Address: | Route 1, Box 1815 |
| County: | Cassia |
| Facility Contact Name and Title: | Jeffrey M. Baker, P.E., Environmental Remediation Compliance Supervisor |
| Contact Name Phone Number: | (208) 375-1250 |
| Responsible Official Name and Title: | Jeff J. Carter, Distribution Center Manager |
| Exact plant Location: | 421 E. Highway 81 (near Burley, Idaho) |
| General Nature of Business & Kinds of Products: | Petroleum product storage and distribution |

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ACRONYMS, UNITS, and CHEMICAL NOMENCLATURE

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| AFS | AIRS Facility Subsystem |
| AIRS | Aerometric Information Retrieval System |
| AQCR | Air Quality Control Region |
| ASTM | American Society of Testing and Materials |
| CFCs | chlorofluorocarbons |
| CFR | Code of Federal Regulations |
| CO | carbon monoxide |
| DEQ | Idaho Department of Environmental Quality |
| dscf | dry standard cubic feet |
| dscfm | dry standard cubic feet per minute |
| EPA | U.S. Environmental Protection Agency |
| gr | grain (1 pound = 7000 grains) |
| HAPs | hazardous air pollutants |
| IDAPA | a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act |
| km | kilometer |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NO _x | nitrogen oxides |
| NSPS | New Source Performance Standards |
| PM | particulate matter |
| PM ₁₀ | particulate matter with a mean aerodynamic diameter of 10 micrometers or less |
| PTC | permit to construct |
| RVP | Reid Vapor Pressure |
| SCC | Source Classification Code |
| SIC | Standard Industrial Classification |
| SO ₂ | sulfur dioxide |
| T/yr | tons per year (1 T = 2000 lb) |
| µm | micrometers |
| VOC | volatile organic compounds |
| VOL | volatile organic liquids |
| UTM | Universal Transverse Mercator |

FINAL PERMIT ISSUANCE SUMMARY

A 30-day public comment period for the Tesoro West Coast Company's draft Tier I operating permit was held from December 27, 2000, to January 26, 2001, in accordance with IDAPA 58.01.01.364 (*Rules for the Control of Air Pollution in Idaho*). A proposed permit has been developed and is being forwarded to EPA Region 10 for their 45-day review as required by IDAPA 58.01.01.366.

IDAPA 58.01.01.008.01, defines *affected states* as: "All states: whose air quality may be affected by the emissions of the Tier I source and that are contiguous to Idaho; or that are within fifty (50) miles of the Tier I source."

A review of the site location information included in the permit application indicates that the facility is located with 50 miles of a state border. Therefore, the states of Utah and Nevada were provided an opportunity to comment on the draft Tier I operating permit.

Summary of Comments

No comments were received from any affected state or member of the public.

EPA 45 Day Review

The proposed Tier I permit was sent to EPA Region 10 on June 11, 2002. No comments or objections were received from EPA.

1. **PURPOSE**

The purpose of this memorandum is to explain the legal and factual basis for this proposed Tier I operating permit in accordance with IDAPA 58.01.01.362, *Rules for the Control of Air Pollution in Idaho*.

The DEQ has reviewed the information provided by the Tesoro Refining and Marketing Company (Tesoro) regarding the operation of their facility near Burley, Idaho. This information was submitted based on the requirements of the Tier I operating permit in accordance with Section 58.01.01.300 of the *Rules*.

2. **SUMMARY OF EVENTS**

Summary of Events under Amoco Oil Company Ownership

On July 17, 1995, the DEQ received the original submittal of a Tier I operating permit from the Amoco Oil Company (Amoco). The responsible official at that time was S. G. Horsfield, Manager - Salt Lake City Business Unit.

In a letter dated December 10, 1996, Amoco provided written formal notification of the intent to gain its area source status prior to the statutory compliance date of December 16, 1997.

On November 24, 1998, Amoco submitted an update to the Tier I operating permit application.

On November 30, 1998, DEQ declared Amoco's November 24, 1998 application update complete.

In a letter dated December 16, 1998, Amoco provided a written supplemental notification to EPA - Region X's Director of Air and Toxics Division, that the facility intends to utilize the screening equation option which is listed in 40 CFR 63.420 to gain federally enforceable limitations on the potential to emit hazardous air pollutants, and thereby remain an area source not subject to the requirements of the Bulk Gasoline Distribution MACT standard (see Appendix C).

In a letter dated January 22, 1999, DEQ notified Amoco that IDAPA 58.01.01.728, which limits the allowable amount of sulfur in distillate fuel oil, was an applicable requirement for the facility under the Tier I permitting program.

On September 28, 1998, DEQ received a Tier I operating permit application update. The document was dated September 22, 1998. Mr. James Lamanna, Manager - Salt Lake City Business Unit, was the responsible official for the entirety of the permit application.

On January 4, 1999, DEQ received a letter dated December 21, 1998 from Amoco. The letter explained the requested Tier I permit terms and conditions regarding potential to emit HAPs.

On May 12, 1999, DEQ received a Tier I operating permit application update dated May 6, 1999. Jeff J. Carter, Terminal Manager, is the current responsible official for this facility. The update consisted of an updated compliance certification, a listing of applicable requirements, and insignificant activities for the facility.

On November 1, 2000, DEQ mailed Amoco Oil Company's permitting representative an initial draft copy of the permit and technical memorandum for review and comments. On November 16, 2000, Darrin Mehr, Air Quality Engineer, DEQ, was contacted by the facility's permitting representative, Brenda Donovan, EHS Advisor, by telephone who confirmed that the facility did not have any comments or suggestions on the Tier I operating permit. No comments were received from the Twin Falls Regional Office.

A 30-day public comment period for the draft Tier I operating permit was held from December 27, 2000, to January 26, 2001, in accordance with IDAPA 58.01.01.364 (*Rules for the Control of Air Pollution in Idaho*).

No comments were received from the affected states or the public.

Summary of Events under Tesoro Refining and Marketing Ownership

On August 27, 2001, DEQ received a submittal from Tesoro dated August 22, 2001, requesting that DEQ recognize Tesoro's ownership, operational control, and responsibility for the Burley, Idaho facility currently owned by the Amoco Oil Company.

DEQ received a submittal from Tesoro on September 4, 2001, dated August 30, 2001, clarifying that the transfer of ownership of the facility will occur on September 6, 2001.

On August 31, 2001, DEQ received a submittal dated August 29, 2001, from Amoco, confirming that the change in ownership, operational control, and responsibility would be transferred to Tesoro, effective September 6, 2001.

On September 19, 2001, DEQ received a letter by facsimile, dated September 13, 2001, which requested that Jeff J. Carter, Terminal Manager, be designated the facility's responsible official.

On October 16, 2001, DEQ issued a letter acknowledging the receipt of the information updating the facility's Tier I operating permit application due to the change in ownership. This letter also approved the designation of Jeff J. Carter, Terminal Manager, as the current responsible official for Tesoro's Burley facility.

On February 28, 2002, DEQ received notification from Tesoro West Coast Company that as of January 1, 2002 the corporation changed its name to Tesoro Refining and Marketing Company.

On February 28, 2002 DEQ received an application from Tesoro to revise PTC No. 031-00017, issued on May 23, 1993. On March 15, 2002, that application was declared complete.

On April 16, 2002, the PTC revision was issued by DEQ.

3. BASIS OF THE ANALYSIS

The following documents were relied upon in preparing this memorandum and the Tier I operating permit:

- (1) Tier I Air Permit Application, dated June 23, 1995, and received June 26, 1995, Amoco Oil Company
- (2) Tier I Air Permit Application Resubmittal, dated June September 18, 1995, and received September 19, 1995, Amoco Oil Company
- (3) Inventory Branch, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency
- (4) US EPA TANKS 4.09b Storage Tank Emissions Calculation Software, Version 4.09b, Emissions Inventory Branch, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency
- (5) Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Office of Air Quality Planning and Standards, United States Environmental Protection Agency, January 1995
- (6) Tier I Operating Permit Application Revision, dated September 22, 1998, and received September 29, 1998
- (7) New Equipment Leak Emission Factors for Petroleum Refineries, Gasoline Marketing, and Oil & Gas Production Operations, U.S. EPA, February 1995

- (8) Tier I operating permit application update consisting of a request for transfer of ownership, operational control, and responsibility from Amoco Oil Company, to the Tesoro West Coast Company, dated August 22, 2001
- (9) Designation of Jeff J. Carter, Terminal Manager, as the facility's responsible official, by Tesoro, letter dated September 13, 2001, from Charles L. Magee, Vice President, General Counsel, & Assistant Secretary, Tesoro, to Bill Rogers, DEQ
- (10) 2001 Idaho Air Quality Emissions Registration Fee Form and Accompanying Emissions Estimates, submitted by Amoco Oil Company, received by DEQ on September 7, 2001
- (11) PTC No. 031-00017, for Tank 1004, issued April 16, 2002, and Technical Memorandum
- (12) PTC No. 031-00017, issued August 23, 1993
- (13) Stipulation of Settlement and Dismissal of Appeal Documents between the Department of Health and Welfare (DEQ) and Amoco Oil Company
- (14) Technical Memorandum and Permit to Construct No. 031-00017, dated August 23, 1993

4. FACILITY DESCRIPTION

4.1 General Process Description

The facility receives petroleum products through the Chevron supply pipeline originating in Salt Lake City, Utah. Petroleum products consisting of various grades of gasoline and distillate fuels are temporarily stored in tanks prior to transfer to mobile carrier tanks for transport and delivery off-site. Distillate fuels can be one of a variety of fuels - kerosene, jet fuel, naphtha, diesel, etc.

The gasoline fuel is stored in either of the tanks equipped with either an internal or internal floating roof. The other distillate fuels are stored in fixed roof tanks. Chemical additives are stored in several smaller fixed roof tanks. The additives may be blended with the fuel products at the loading rack as the fuel is transferred from the storage tanks to the mobile transport tanks. The transport (or carrier) tanks are filled with the petroleum products at the loading rack, which is an overhead fill design. Carrier tanks are hauled by semi-truck off of the facility property to transfer the fuels at various sites for immediate use.

Storage tanks identified as Tank 1001 and Tank 1002 store gasoline or less volatile petroleum products. Each tank is equipped with an internal floating roof to control emissions of VOCs and HAPs.

Distillate fuel is stored in Tanks 1003 and 1004, which are fixed roof tanks. Fixed roof storage tanks are not allowed to store gasoline unless they are equipped with the appropriate floating roof and seals.

4.2 Facility Classification

The facility is classified as a major source with a designation of "A," in accordance with IDAPA 58.01.01.008.10, for Tier I permitting purposes, because the facility has the potential to emit approximately 256 T/yr of VOC emissions. The PTE estimate for VOCs is based on annual average gasoline volatility. The PTE estimate indicates that the permitting authority should examine the calculations and assumptions in depth if a modification request is submitted by the permittee that triggers NSR for an increase in VOC emissions. Please see Appendix C to review the emission estimate spreadsheets for VOC and HAPs emissions.

The facility is an area (or nonmajor) source of hazardous air pollutants (HAPs) emissions with federally enforceable limitations on potential HAPs emissions using the approved screening equation in 40 CFR 63.420(a)(1) for bulk gasoline distribution facilities. An estimate of potential to emit HAPs is included in Appendix C. The facility has an approximate PTE of 11 T/yr of aggregated HAPs and 5.4 T/yr of Hexane (-

n) as the largest PTE of any individual HAP. The individual and aggregated HAPs PTE estimates are approximate and change with the actual chemical speciation of the gasoline distributed by the facility.

4.3 Area Classification

Tesoro's bulk gasoline distribution terminal is located near Burley, Idaho, which is in Cassia County, in Air Quality Control Region (AQCR) 63. PSD has been triggered in AQCR 63 for TSP on December 11, 1978, and for NO_x on October 25, 1991.

4.4 Permitting History

Based on the review of the contents of the source file for Tesoro's Boise facility, the following chronological listing has been established for the facility's permitting history. Events that occurred during ownership by the Amoco Oil Company are noted accordingly.

- On November 21, 1988, DEQ received a PTC application for the modification of an existing source. The storage of gasoline rather than distillates in Tank 1004 was requested. The existing tank was equipped with a fixed cone roof and the tank was to be fitted with an internal floating roof system to control emissions of VOCs, and thus TAPs and HAPs.
- On July 17, 1989, the application was declared complete.
- On October 24, 1989, PTC No. 0440-0017 was issued to Amoco for switching Tank #1004 to gasoline service. NSPS Subpart Kb requirements for storage tanks were included in the PTC. The tank was equipped with an internal floating roof.
- On May 27, 1993, DEQ issued Amoco a modified PTC that allowed for an increase in gasoline throughput for Tank #1004 from one million gallons per year (gal/yr) to five million gal/yr. This action is referenced as PTC No. 031-00017, dated May 27, 1993.
- In a letter dated August 16, 1993, and received by DEQ on August 24, 1993, Amoco notified DEQ that the roof seals on Tank 1004 caught on fire. The internal floating roof that was installed to allow the tank to store gasoline was not repaired and the material stored in the tank was requested to be changed to reflect less volatile distillate products. Amoco stated that New Source Performance Standards (Subpart Kb) would not apply because materials stored in the tank would have a Reid vapor pressure of less than 0.10 psia.
- On August 23, 1993, DEQ issued Amoco a modified PTC for Tank 1004. The PTC limited emissions of VOCs to a quantity of 0.407 T/yr according to the methods of calculation used in the permitting analysis.
- On September 13, 1993, Amoco submitted a petition to appeal the issuance of PTC No. 031-00017, August 23, 1993.
- On January 21, 1994, the Department of Health and Welfare (IDHW), of which DEQ was a subordinate Division, and Amoco Oil Company, entered into an agreement for settlement of the dispute concerning the issuance of PTC No. 031-00017, August 23, 1993. The settlement agreement formally resolved the permittee's appeal (also referred to as a contested case). Amoco withdrew the petition to appeal the permit, and the scheduled hearing. The IDHW (and DEQ) withdrew the PTC. This settlement agreement was submitted to the Hearings Coordinator for dismissal of the action in question before the Idaho Board of Health and Welfare.
- On January 26, 1994, the Hearings Coordinator for the IDHW dismissed the contested case with prejudice. The IDHW revoked PTC No. 031-00017, August 23, 1993, and Amoco's petition for the contested case action was formally recognized as being withdrawn.
- On January 6, 1995, DEQ responded to Ecova's Exemption request with a letter stating that "the environmental characterization activities at the Amoco Oil Company, Burley Idaho Marketing Terminal,

are categorically exempt from air quality Permit to Construct requirements...". DEQ concurred that the initial portion of the project was exempt, and that following the pilot test (or initial performance test) the ongoing project's emissions may be exemptable under recently modified PTC *Rules*.

- On February 21, 1995, DEQ received a submittal dated February 15 from Ecova Corporation which consisted of a Notification of a Permit to Construct Category I Exemption for a Soil Vapor Extraction and Air Sparging System (SVE/AS). The SVE/AS was installed for remediation activities at Amoco's Burley, Idaho facility. The project was to utilize a vapor incineration control device. The anticipated duration of operation was listed as approximately two years. The facility's remediation activity was coordinated with the Twin Falls Regional Office.
- In a letter dated March 10, 1995, DEQ informed the Ecova Corporation that the notification submittal for the exemption for emissions from the SVE/AS remediation project was on file at DEQ. The letter also stated that a formal concurrence with the exemption request would require a complete PTC submittal. No other formal documentation such as an issued PTC or PTC denial from DEQ was found on this activity.
- On July 17, 1995, DEQ received Amoco's original Tier I operating permit application for the Burley facility. The application was dated July 12, 1995. The responsible official at that time was S. G. Horsfield, Manager - Salt Lake City Business Unit.
- On September 18, 1995, DEQ declared Amoco's Tier I operating permit application incomplete.
- On November 6, 1995, DEQ received a submittal from Amoco Oil Company, dated October 31, 1995. The submittal consisted of a response letter to DEQ incompleteness letter, a revised regulatory requirement review listing of applicable requirements, and an updated compliance certification and compliance plan. The letter explained the situation concerning Tank 1004, restated Amoco's position on the sulfur content regulations per IDAPA 58.01.01.728, and declared that remediation activities are not part of the *facility's* applicable requirements. The letter also discussed the facility's throughput limitation of gasoline.
- In a letter dated December 10, 1996, Amoco provided written formal notification of the intent to gain its area source status by the statutory compliance date of December 16, 1997. Area source status is required to avoid being subject to the Bulk Gasoline Distribution MACT requirements.
- On December 2, 1998, DEQ received an amendment to the Tier I operating permit application from Amoco that was dated November 24, 1998. The submittal consisted of:
 - 1) A proposed determination of nonapplicability for sulfur content in distillate fuels for Title V purposes;
 - 2) Updated compliance certification;
 - 3) Updated compliance plan.The facility's responsible official was James H. Lamanna, Manager, Salt Lake City Business Unit.
- On November 30, 1998, DEQ declared Amoco's November 24, 1998, application update complete.
- In a letter dated December 17, 1998, Amoco provided a written supplemental notification to EPA - Region X's Director of Air and Toxics Division, that the facility intends to utilize the screening equation option which is listed in 40 CFR 63.420 to gain federally enforceable limitations on the potential to emit hazardous air pollutants. This would allow the facility to remain an area source which is not subject to the requirements of the Bulk Gasoline Distribution MACT standard. The official written notification (and Administrator approval) is required before the facility gains this area (or nonmajor) source status.

The December 17, 1998 notification included two tanks with internal floating roofs. The E_T value in the screening equation was kept at 0.9999, and the allowable gasoline throughput was listed as 124.15 million gallons per year, or 340,148 gallons per day.

- On January 4, 1999, DEQ received a letter dated December 21, 1998 from Amoco. The letter listed the facility's requested Tier I permit terms and conditions to create enforceable limits on the potential to emit HAPs. The document clearly listed the most concise and direct method of limiting the HAPs emissions, and provided a discussion of the regulatory basis. The facility will utilize the screening equation option listed in 40 CFR 63.420(a)(1) for establishing the facility as an area source of HAPs.
- In a letter dated January 22, 1999, DEQ notified Amoco that IDAPA 58.01.01.728, which limits the allowable amount of sulfur in distillate fuel oil, was an applicable requirement for the facility under the Tier I permitting program. The determination was based upon the regulation being part of the formally approved State of Idaho State Implementation Plan, and thus a federally enforceable applicable requirement rather than solely a state enforceable applicable requirement.
- On May 12, 1999, DEQ received a submittal from Amoco dated May 6, 1999. The submittal consisted of a Tier I operating permit application update.
- On August 27, 2001, DEQ received a submittal from Tesoro West Coast Company. The responsible official for the facility was designated as Charles L. Magee, Vice President, General Counsel & Assistant Secretary, in the application update.
- On September 19, 2001, DEQ received a submittal from Charles L. Magee, Vice President, General Counsel & Assistant Secretary, Tesoro, to Bill Rogers, DEQ, designating Jeff J. Carter, Terminal Manager, as responsible official.
- DEQ formally recognized Jeff J. Carter, Terminal Manager, as the Burley facility's responsible official, and the transfer of ownership of the facility and the Title V operating permit application, in a letter dated October 16, 2001.
- On January 11, 2002, DEQ received a copy of a letter dated January 4, 2002, from Tesoro to EPA Region X. The letter served to fulfil annual area source reporting requirements for the facility to maintain the Burley facility's exemption from being subject to 40 CFR 63 – Subpart R MACT emissions standards.
- On February 28, 2002, DEQ received notification from Tesoro that the company formally changed its name from the Tesoro West Coast Company to the Tesoro Refining and Marketing Company.
- On February 28, 2002, DEQ received an application for a PTC revision to PTC No. 031-00017, which was issued on May 27, 1993. The application was declared complete on March 15, 2002.
- On April 16, 2002, the PTC revision to PTC No. 031-00017, for Tank 1004, was issued.

No additional permitting actions were discovered in DEQ's files.

4.5 EMISSIONS DESCRIPTION

Emissions from the facility include process-related VOCs and HAPs from storage tanks, loading rack, and fugitive emissions.

There are two types of storage tanks that are operated at this facility - tanks equipped with an internal floating roof and those with a fixed roof. The tanks that are equipped with an internal floating roof are designed to store various grades of gasoline. The fixed roof tanks store liquids which are less volatile. Emissions of VOCs and HAPs are created from breathing and working losses. Generally, breathing losses are caused by the volatilization and escape of VOCs and HAPs into the atmosphere from gaps in seals, vents, and fittings due to temperature and insolation (solar effects) on the tank and its contents. Working losses are created by the emptying and filling of the tank.

Atmospheric pressure and volatility of the stored liquid play a large role in determining the amount of VOC and HAP emissions for both working and breathing loss mechanisms.

HAPs are present in the various petroleum products stored and transferred at the facility. HAPs are permitted due to the volatilization of the liquid HAPs while the products are stored in tanks, transferred through piping, and loaded into carrier tanks (tanker trucks). The largest quantities of the HAPs are emitted during the transfer of petroleum products from storage tanks to the mobile carrier tanks through the loading rack system.

HAPs emissions are mainly a result of gasoline service. Gasoline has a significantly higher HAPs content in both species and amount in comparison to distillate fuel oils (such as diesel fuels, jet fuel, etc.). The volatility of gasoline far exceeds that of distillate fuel oils, and thus the actual and potential air pollutant emissions are orders of magnitude larger for gasoline products. The major portion of HAPs emissions is from the loading rack operation where distillate fuel oil or gasoline is pumped into waiting carrier tanks for off-site delivery. Additives can be blended with the fuel at the loading rack just prior to the filling of the carrier tank.

Emission estimates were provided by Amoco with the Tier I operating permit application. Emissions of HAPs and VOCs were estimated for gasoline and distillate fuel oil as the only petroleum products handled by the facility. The HAPs emissions are based upon the chemical makeup of the petroleum products distributed by the facility. The chemical composition of the petroleum products presented in Amoco application is intended to be representative of the average - or typical - composition of the materials. The chemical composition, and thus the individual HAPs species of emissions, varies somewhat by changing seasons and product specification. The Tier I operating permit does not place any requirement on the specific chemical composition of the fuels distributed at this facility.

EPA AP-42 emission factors were utilized for emission estimates from the loading rack. The permittee used the EPA software program titled TANKS 3.1 to estimate the emissions of VOCs and HAPs. The TANKS 3.1 software uses AP-42 emission estimation equations developed by EPA and the American Petroleum Institute (API) and takes into account site specific information such as tank design, product throughput, product physical characteristics, and climatic data, all of which affect emission rates.

TANKS 3.1 has been replaced by the most recent version known as TANKS 4.09b. Emission estimates change slightly by using TANKS 4.09b. Department staff revised the emission estimates for VOCs by using the most recent version of the TANKS software version 4.09b, and the annual gasoline throughput limitation submitted by Tesoro to EPA Region 10 for federally enforceable HAPs limitations to establish non-major source status for the Bulk Gasoline and Distribution MACT.

EPA's Protocol for Equipment Leak Emission Estimates was used for estimating fugitive emissions from equipment at the marketing terminals. The emissions of VOCs from this equipment were only estimated to be 0.34 tons per year. HAPs emissions are negligible at that level of VOC emissions.

Fugitive dust emissions are created by vehicle traffic and windblown dust at the facility. Fugitive VOC and HAPs emissions are created during maintenance activities and leakage from process equipment such as piping flanges, pump seals, valves, and similar sources associated with the storage and transfer of refined petroleum products.

5. REGULATORY ANALYSIS

5.1 Facility-wide Applicable Requirements

5.1.1 Fugitive Particulate Matter - IDAPA 58.01.01.650-651

5.1.1.1 Requirement

Permit Condition 2.1 states that, all reasonable precautions shall be taken to prevent particulate matter from becoming airborne in accordance with IDAPA 58.01.01.650-651.

5.1.1.2 Compliance Demonstration

Fugitive dust emissions have a potential to be created primarily by vehicle traffic on any paved and unpaved surfaces, and any maintenance activities that create the potential for windblown fugitive dust. Permit Condition 2.2 states that the permittee is required to monitor and record the frequency and the methods used by the facility to reasonably control fugitive particulate emissions. IDAPA 58.01.01.651 gives some examples of ways to reasonably control fugitive emissions which include, use of water or chemicals, application of dust suppressants, use of control equipment, covering of trucks, paving of roads or parking areas, and removal of materials from streets.

Permit Condition 2.3 requires that the permittee maintain records of all fugitive dust complaints received. In addition the permittee is required to take appropriate corrective action as expeditiously as practicable after a valid complaint is received. The permittee is also required to maintain records including the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken and the date the corrective action was taken.

To ensure that the methods being used by the permittee to reasonably control fugitive particulate matter emissions whether or not a complaint is received, Permit Condition 2.4 requires that the permittee conduct periodic inspections of the facility. The minimum frequency specified is quarterly. The permittee is required to inspect potential sources of fugitive emissions during daylight hours and under normal operating conditions. If the permittee determines that the fugitive emissions are not being reasonably controlled the permittee shall take corrective action as expeditiously as practicable. The permittee is also required to maintain records of the results of each fugitive emission inspection.

Both Permit Conditions 2.3 and 2.4 require the permittee to take corrective action as expeditiously as practicable. In general, the Department believes that taking corrective action within twenty-four hours of receiving a valid complaint or determining that fugitive particulate emissions are not being reasonably controlled meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.1.2 Control of Odors - IDAPA 58.01.01.775-776

5.1.2.1 Requirement

Permit Condition 2.5 and IDAPA 58.01.01.776 both state that: *"No person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids to the atmosphere in such quantities as to cause air pollution."* This condition is currently considered federally enforceable until such time it is removed from the SIP, at which time it will be a state-only enforceable requirement.

5.1.2.2 Compliance Demonstration

There is a potential for odors to exist at this facility. Gasoline and distillate fuels are known to provide vapors which some find offensive. The facility is located near public and private institutions where a large number of people would have the potential to be affected if odors are present. Permit Condition 2.6 requires the permittee to maintain records of all odor complaints received. If the complaint has merit, the permittee is required to take appropriate corrective action as expeditiously as practicable. The records are required to contain the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

Permit Condition 2.6 requires the permittee to take corrective action as expeditiously as practicable. In general, the Department believes that taking corrective action within twenty-four hours of receiving a valid odor complaint meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.1.3 Visible Emissions - IDAPA 58.01.01.625

5.1.3.1 Requirement

IDAPA 58.01.01.625 and Permit Condition 2.7 state that "(No) person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period which is greater than 20% opacity as determined . . ." by IDAPA 58.01.01.625. This provision does not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas is the only reason(s) for the failure of the emission to comply with the requirements of this rule.

5.1.3.2 Compliance Demonstration

The facility does not contain any sources typically identified with the potential to exhibit opacity subject to the IDAPA 58.01.01.625 Visible Emissions requirement. For the purpose of this permit, permit Condition 2.7, which specifies the applicable opacity limitation of IDAPA 58.01.01.625, is included. For compliance demonstration purposes, permit Condition 2.8 has been included. This is necessary because the only emission points known at the facility have VOC emissions from gasoline and distillate fuel and visible emissions are not expected to exceed 20% opacity for those sources.

To ensure reasonable compliance with the visible emissions rule, Permit Condition 2.8 requires that the permittee conduct routine visible emissions inspections of the facility. The permittee is required to inspect potential sources of visible emissions, during daylight hours and under normal operating conditions. If any visible emissions are present from any point of emission covered by this section, the permittee must take appropriate corrective action as expeditiously as practicable. If opacity is determined to be greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee must take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130-136. The permittee is also required to maintain a log of the results of each visible emissions inspection which must include the date of each inspection and a description of the permittee's assessment of the conditions existing at the time visible emissions are present, any corrective action taken in response to the visible emissions, and the date corrective action was taken.

It should be noted that if an emissions unit has a specific compliance demonstration method for visible emissions that differs from Permit Condition 2.8, then that compliance demonstration method overrides the requirement of Condition 2.8. Condition 2.8 is intended for small sources that would generally not have any visible emissions.

Permit Condition 2.8 requires the permittee to take corrective action as expeditiously as practicable. In general, the Department believes that taking corrective action within twenty-four hours of discovering visible emissions meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action, or a longer time period may be necessary. Permit Condition 2.8 has been updated in the Tier I operating permit to reflect the current standard language developed by the Department in response to public and EPA Region 10 comments.

5.1.4 Startup, Shutdown, Scheduled Maintenance, Safety Measures, Upset and Breakdown- IDAPA 58.01.01.130-136

5.1.4.1 Requirement

Permit Condition 2.9 requires that the permittee comply with the requirements of IDAPA 58.01.01.130-136 for startup, shutdown, scheduled maintenance, safety measures, upset and breakdowns. This section is fairly self explanatory and no additional detail is necessary in this technical analysis. It should, however, be noted that subsections 133.02, 133.03, 134.04, and 134.05 are not specifically included in the permit as applicable requirements. These provisions of the *Rules* only apply if the permittee anticipates requesting consideration under subsection 131.02 of the *Rules* to allow the Department to determine if an enforcement

action to impose penalties is warranted. Section 131.01 states "... The owner or operator of a facility or emissions unit generating excess emissions shall comply with Sections 131, 132, 133.01, 134.01, 134.02, 134.03, 135, and 136, as applicable. If the owner or operator anticipates requesting consideration under Subsection 131.02, then the owner or operator shall also comply with the applicable provisions of Subsections 133.02, 133.03, 134.04, and 134.05." Failure to prepare or file procedures pursuant to Sections 133.02 and 134.04 is not a violation of the Rules in and of itself, as stated in subsections 133.03.a and 134.06.b. Therefore, since the permittee has the option to follow the procedures in Subsections 133.02, 133.03, 134.04, and 134.05; and is not compelled to, the subsections are not considered applicable requirements for the purpose of this permit and are not included as such.

5.1.4.2 Compliance Demonstration

The compliance demonstration is contained within the text of Permit Condition 2.9. No further clarification is necessary here.

5.1.5 Recordkeeping Requirements

Standard record keeping requirements of IDAPA 58.01.01.322.07 requires:

The date, place (as defined in the Tier I operating permit) and time of sampling or measurements;

- ▶ The date(s) analyses were performed;
- ▶ The company or entity that performed the analyses;
- ▶ The analytical techniques or methods used;
- ▶ The results of such analyses; and
- ▶ The operating conditions existing at the time of sampling or measurement.

Records required by the permit will be maintained for a minimum of five years in an appropriate location and made available to DEQ representatives upon request in accordance with IDAPA 58.01.01.322.07(a) and 40 CFR 70.6(a)(3)(ii)(B). The records may be in electronic or hard copy form.

5.1.6 Monitoring Records

All monitoring records and support information generated as a result of the permit are required to be maintained for at least five years from the date of monitoring, sample measurement, report or application in accordance with IDAPA 58.01.01.322.07(c) and 40 CFR 70.6(a)(3)(ii)(B).

5.1.7 Reporting Requirements

The permittee must submit reports of any required monitoring at least once per every six-month period. For the purpose of IDAPA 58.01.01.322.08(c), the permittee may submit a summary report of all required monitoring and recordkeeping except for cases where the permittee is reporting a deviation from the permit requirement(s). For cases where the permittee must report a deviation that qualifies as an excess emission, the provisions of IDAPA 58.01.01.130-136 must be followed.

Deviations from permit conditions other than excess emission events may be submitted with the semiannual report, unless the permit specifically requires another time frame. For these non-excess emission events the permittee must submit a description of the probable cause of each event and a description of the methods used to control or minimize each event.

5.1.7.1 40 CFR 63-Subpart R Reporting

The permittee is required to submit an annual report to EPA Region 10 and DEQ's Twin Falls Regional Office. The submittal schedule for this requirement is at least once per consecutive 12-month period. 40 CFR 63.428(i) states that for a facility with an emission screening factor (E_T) value of less than 1.0, but

greater than 0.5, the facility must submit an annual report to the Administrator. The screening factor equation is listed under 40 CFR 63.420(a)(1). The Tesoro Burley facility is operating under an E_T factor of 0.9999.

The deadline for submittal of the report is established by the prior year's submittal. If the permittee wishes to alter the deadline, a report must be submitted to EPA Region 10 and DEQ before the annual report is due. The next annual report will be due within one year of the most recent submittal.

The timeline for submittal of this MACT area source reporting is independent of the semi-annual monitoring and recordkeeping reporting specified by General Provision 21, for annual compliance certifications, and General Provision 24, for semi-annual reporting of monitoring and recordkeeping as required by the Tier I operating permit.

The regulatory language of 40 CFR 63 – Subpart R was included in the permit to the minimum extent possible. This is specifically intended to allow for changes to occur through EPA rule promulgation without creating the need to reopen the permit to incorporate the altered regulations. The present version of 40 CFR 63 – Subpart R is included in Appendix A for reference.

5.1.8 Testing Requirements

Testing requirements will be determined through the methods allowed by 58.01.01.157, which may allow the facility and the Department the ability to grant approval for alternative testing methods. There is no testing required by the permit other than the testing for sulfur content in distillate fuel oil, which is specified in Section 3 - Other Permit Conditions.

5.1.9 Distillate Fuel Sulfur Content

5.1.9.1 Emission Description

Sulfur content in fuels is limited by regulation as a method of reducing sulfur dioxide (SO_2) emissions resulting from combustion of the fuels in internal combustion engines.

5.1.9.2 Applicable Requirement

IDAPA 58.01.01.725 - 728 regulates the sulfur content of fuels distributed and used in Idaho. The text of the regulations follows:

725. RULES FOR SULFUR CONTENT OF FUELS

The purpose of Sections 725 through 729 is to prevent excessive ground level concentrations of sulfur dioxide from fuel burning sources in Idaho. The reference test method for measuring fuel sulfur content shall be ASTM method, D129-95 Standard Test for Sulfur in Petroleum Products (General Bomb Method) or such comparable and equivalent method approved in accordance with Subsection 157.02.d. Test methods and procedures shall comply with Section 157. (4-23-99)T

726. DEFINITIONS AS USED IN SECTIONS 727 THROUGH 729

01. *ASTM. American Society for Testing and Materials.*
02. *Distillate Fuel Oil. Any oil meeting the specifications of ASTM Grade 1 or Grade 2 fuel oils.*
03. *Residual Fuel Oil. Any oil meeting the specifications of ASTM Grade 4, Grade 5 and Grade 6 fuel oils.*

727. RESIDUAL FUEL OILS.

01. *Standards for 1973. After January, 1973, no person shall sell, distribute, use or make available for use, any residual fuel oil containing more than 2.5% sulfur by weight.*
02. *Standards Beginning 1974. After January, 1974, no person shall sell, distribute, use or make available for use, any residual fuel oil containing more than 1.75% sulfur by weight.*

728. DISTILLATE FUEL OIL

No person shall sell, distribute, use or make available for use, any distillate fuel oil containing more than the following percentages of sulfur:

01. *ASTM Grade 1. ASTM Grade 1 fuel oil - 0.3 % by weight*
02. *ASTM Grade 2. ASTM Grade 2 fuel oil - 0.5 % by weight*

The Tier I operating permit application did not reflect distribution of residual fuel oils. Consequently, the permit does not reflect any applicable requirement or compliance demonstration requirements for IDAPA 58.01.01.727, which addresses the distribution of fuels. In the event this facility ever distributes residual fuel oils the permittee must submit an application for a permit modification.

The permit does not specifically include the definitions listed in the regulation. The limitations are specified in IDAPA 58.01.01.728, and are included in the Tier I operating permit as Permit Condition 2.18.

5.1.9.3 Compliance Determination

The permit allows an option for establishing compliance with the sulfur limitation. The text of the compliance demonstration method follows:

The reference test method for measuring fuel sulfur content shall be ASTM method, D129-95 Standard Test for Sulfur in Petroleum Products (General Bomb Method) or such comparable and equivalent method approved in accordance with IDAPA 58.01.01.157.02.d. Test methods and procedures shall comply with IDAPA 58.01.01.157. The permittee may distribute distillate fuels from any of the storage tanks prior to, during, and after the sampling event.

- 2.19.1 *The permittee shall determine the sulfur content in each distillate fuel storage tank on a monthly basis by testing as specified in Condition 2.19; or*
- 2.19.2 *The permittee shall obtain documentation of the distillate fuel oil sulfur content from the refinery or refineries that produce(s) the fuel. Acceptable documentation shall include current contractual agreements which specify that the sulfur contents of distillate fuel oils entering the pipeline from the refinery are within the limits specified in this permit. In addition, the permittee shall determine the sulfur content in each distillate fuel storage tank on a semi-annual basis by testing as specified in Condition 2.19. Testing documentation shall identify the tank number and the ASTM Grade of the fuel stored in the tank at the time of testing.*

Permit Condition 2.19 lists the test method specified by sulfur content standard as listed in IDAPA 58.01.01.725. The permittee is allowed the option of changing the test method provided DEQ approves of it. The permittee would need to follow the requirements of IDAPA 58.01.01.157 to alter the approved test method. The basis for the compliance demonstration is that the permittee will either sample all tanks at the distribution (or breakout station) facility located in Idaho, and then test the sample according to the approved method. Condition 2.19.1 requires a monthly sampling and testing regimen, whereas Condition 2.19.2 allows for a reduced sampling and testing frequency of semi-annually, but also requires that the permittee obtain the contractual agreement on the amount of sulfur contained in the fuel to be delivered to the Idaho facility.

5.1.9.4 Emission Limits and Standards Authority

The authority for the fuel sulfur content limitations and testing requirements is IDAPA 58.01.01.725, 726.01, 726.02, and 728. The date of effectiveness for these regulations is April 23, 1999, for IDAPA 58.01.01.725, and May 1, 1994, for each of the other regulations cited above.

For information purposes, the distillate fuel sulfur content requirement differs from the other federal regulations that impose requirements on the chemical composition and physical properties of fuels. Many of these requirements are specified in 40 CFR 80. The distillate fuel sulfur content limitations are part of the approved Idaho State Implementation Plan and are listed in the air quality regulations in IDAPA 58.01.01.725-728. Thus, these sulfur limitations impose a specific applicable requirement for the Title V program, whereas the other fuel requirements listed under 40 CFR Part 80 are not applicable requirements for Title V permitting.

5.1.9.5 Monitoring Requirements

The permittee is required to monitor the sulfur content of distillate fuel oil on either a monthly or semi-annual basis, depending on the option chosen. The language in Permit Condition 2.19 was developed with the input of the distillate fuel distributors that are subject to Title V permitting requirements. Amoco was a participant in drafting the compliance demonstration language, because this action pre-dated Tesoro's ownership of this facility.

5.1.9.6 Testing Requirements

The facility must test the samples of distillate fuel oil taken at the facility utilizing either the test method for sulfur content specified by IDAPA 58.01.01.725. IDAPA 58.01.01.725 specifies the test method for a fuel's sulfur content as ASTM method, D129-95 Standard Test for Sulfur in Petroleum Products (General Bomb Method) or such comparable and equivalent method approved in accordance with Subsection 157.02(d). Test methods and procedures must comply with Section 157 of the *Rules*.

5.1.9.7 Recordkeeping Requirements

The information that the permittee must keep includes the identification of the tank(s) sampled and the standard test result information on the weight percent of sulfur contained in the fuel. If the permittee chooses to use Permit Condition 2.19.2, the contractual documentation between the permittee and any fuel vendor which arranges to provide fuel for the permittee must be kept. The permittee must identify in a log which compliance demonstration method is being employed. This language was added to Permit Condition 2.19 in response to an EPA comment that the compliance demonstration option qualified as an "alternative operating scenario."

5.1.9.8 Reporting Requirements

The permittee must submit certified semiannual reports of all required monitoring listed above in Section 5.1.9.5. Deviations are to be noted by the permittee and the corrective action(s) taken must be included in the semiannual report.

All monitoring records and support information must be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.

5.1.10 Facility-wide Potential to Emit HAPs for MACT Area Source Status

The facility has established its potential to emit HAPs by utilizing the screening equation found in the NESHAPS regulation for Bulk Gasoline Distribution facilities and Pipeline Breakout Stations. This requirement is often referred to as the Gasoline Distribution MACT. This equation is found in 40 CFR 63.420(a)(1) and is a self-implementing method of limiting potential to emit HAPs.

5.1.10.1 Emissions Description

Hazardous air pollutants are emitted from the storage tanks, the loading rack operation, and piping (flanges and valves, etc.).

5.1.10.2 Applicable Requirement

40 CFR 63.420(a) identifies the applicability of the NESHAP requirement. This NESHAP (or MACT) is applied to any facility with the potential to emit HAPs in the amount of 10 tons per year of any single HAP or 25 tons per year of all aggregated HAPs emissions.

Tesoro's facility is a bulk gasoline distribution terminal and 40 CFR 63.420(a)(1) lists the appropriate equation for maintaining the facility's area source status. The owner or operator must document and record to the Administrator's (EPA - Region 10) satisfaction that the facility qualifies for the area source designation. Please refer to Appendix A to review a copy of 40 CFR 63 - Subpart R (also cited as 40 CFR 63.420-63.429).

Facilities subject to this MACT standard would be required to comply with standards on gasoline storage tanks of a specified size; standards for loading racks, standards for cargo tanks (or "tank truck"); and an equipment leak inspection program. Associated monitoring, recordkeeping, reporting, and emission control testing would also be applicable.

5.1.10.3 Compliance Determination

As can be seen through a review of Tesoro's notification materials to EPA Region 10, Tesoro has chosen to allow for the maximum amount of operational flexibility in choosing the enforceable parameters of the screening equation. The parameters selected establish an E_T value of 0.9999. This is primarily dependent upon the daily gasoline throughput limitation; distribution of fuel with a content of less than 7.6% of methyl tert butyl ether; the number of tanks of a particular design (internal versus external floating roof); the number of fugitive emission components used for the gasoline distribution system; an uncontrolled loading rack emission factor; and emissions from miscellaneous activities not related to gasoline service.

This level of emissions (as related to a value of E_T greater than 0.50 but less than 1.0) requires the permittee to comply with 40 CFR 63.420(c)(1) and 40 CFR 63.420(c)(2), which in summary require that the permittee not exceed any of the parameters that were submitted and approved by the Administrator, EPA Region 10, during any 30 day rolling month period, and comply with the reporting and recordkeeping requirements specified by 40 CFR 63.428(i).

5.1.10.4 Emissions Limits and Standards Authority

40 CFR 63.420 establishes the authority for this requirement. By complying with the screening equation parameters, notification, recordkeeping and reporting requirements, Tesoro's Burley facility is considered an area source for the Bulk Gasoline Distribution MACT. This method effectively limits emissions of HAPs below the 10 T/yr of any individual HAP and 25 T/yr of all aggregated HAPs emissions.

The Tier I operating permit does not specify the annual throughput limitation or the other screening equation parameters that were submitted by the permittee to EPA Region 10.

5.1.10.5 Monitoring Requirements

The permittee must monitor the information on the parameters for the screening equation specified by 40 CFR 63.420(a)(1). The equation was not included in the permit in order to allow the permittee to continue to comply with the appropriate equation in the event EPA amends any portion of the equation. The permit would not need to be amended to incorporate the change. Please refer to Appendix B to review the screening equation in 40 CFR 63.420(a)(1). Similarly, the permit does not specify the emission source parameters such as the number of fixed, internal floating, external floating with and without secondary seals, fugitive emissions sources, and annual gasoline throughput.

5.1.10.6 Testing Requirements

There are no testing requirements that apply for this regulation unless the facility was actually subject to this MACT standard.

5.1.10.7 Recordkeeping Requirements

To use the initial notification requirement for the screening equation option, the permittee was required to "document the methods, procedures, and assumptions supporting the calculation in 40 CFR 63.420(c)." This information was submitted to EPA Region 10 in 1996, and was later modified by a submittal in 1998. The 1998 submittal establishes the facility with an E_T value just below 1.0, at 0.9999. 40 CFR 63.428(i)(2) requires the permittee to maintain documentation that the parameters established in the screening equation have not been exceeded, and thus that the facility still qualifies as an area source of HAPs emissions.

In the event the permittee wishes to change one or more screening equation parameters, the increase or decrease in HAPs emissions must be recorded.

5.1.10.8 Reporting Requirements

The permittee was required to report the information listed above concerning the initial notification to EPA Region 10 within 30 days following December 18, 1996.

40 CFR 63.428(i)(3) specifies an annual reporting requirement for the permittee to verify to EPA Region 10 that the screening equation parameters, or facility parameters, have not been exceeded. When altering a parameter, the permittee must provide a written request to the Administrator (currently EPA Region 10) for approval. The approval must be granted prior to exceeding any parameter originally approved by the Administrator.

The permittee must submit certified, semiannual reports of all required monitoring listed above in Section 5.1.5. Deviations are to be noted by the permittee and the corrective action(s) taken must be included in the semiannual report.

All monitoring records and support information must be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.

5.2 Hazardous Air Pollutants (HAPs)

HAPs are present in the various petroleum products stored and transferred at the facility. HAPs are emitted due to the volatilization of the liquid HAPs while the products are stored in tanks, transferred through piping, and loaded into carrier tanks (tanker trucks). The largest quantity of the HAPs are emitted during the transfer of petroleum products from storage tanks to the mobile carrier tanks through the loading rack system.

HAPs emissions are mainly a result of gasoline service. Gasoline has a significantly higher HAPs content in both species and amount in comparison to distillate fuel oils (such as diesel fuels, jet fuel, etc.). The volatility of gasoline far exceeds that of distillate fuel oils, and thus the actual and potential air emissions are orders of magnitude larger for gasoline products. The major portion of HAPs emissions are from the loading rack operation where distillate fuel oil or gasoline are pumped into waiting carrier tanks for off-site delivery. Additives can be blended with the fuel at the loading rack just prior to the filling of the carrier tank.

Emission estimates were provided in the Tier I operating permit application by Tesoro. Emissions of HAPs and VOCs were estimated for gasoline and distillate fuel oil as the petroleum products handled by the facility. The HAPs emissions are based upon the chemical makeup of the petroleum products

distributed by the facility. The chemical composition of the petroleum products presented in Tesoro's application is intended to be representative of the average - or typical - composition of the materials. The chemical composition, and thus the individual HAPs species of emissions varies somewhat by changing seasons and product specification. The Tier I operating permit does not place any requirement on the specific chemical composition of the fuels distributed at this facility.

EPA AP-42 emission factors were utilized for emission estimates from the loading rack. The EPA software program titled TANKS 3.1 was used by the permittee to estimate the emissions of VOCs and HAPs. The TANKS 3.1 software uses AP-42 emission estimation equations developed by EPA and the American Petroleum Institute (API) and takes into account site specific information such as tank design, product throughput, product physical characteristics, and climatic data, all of which affect emission rates. EPA's Protocol for Equipment Leak Emission Estimates was used for estimating fugitive emissions from equipment at the marketing terminals. The emissions of VOCs from this equipment were only estimated to be 0.34 T/yr. HAPs emissions are negligible at that level of VOC emissions.

TANKS 3.1 has been replaced by the most recent version known as TANKS 4.0—the latest version of this is 4.09b as of this date. Emissions estimates may change slightly by using TANKS 4.0, but because this Tier I operating permit contains no specific enforceable emission limits based on TANKS emission estimate software, DEQ has not requested that revised emission estimates be submitted prior to completing the permitting action. The latest version of TANKS generally results in higher emissions estimates for the storage tanks.

In order to identify the potential VOC emissions for the facility, Department staff used the annual gasoline throughput listed in the annual reporting to EPA Region 10, dated June 2, 2000, which was submitted by Amoco, who owned and operated the facility at that time. Tesoro has not modified the facility, or formally requested a change to the screening equation parameters as allowed by 40 CFR 63.428(i)(4), so these assumptions are still valid. The gasoline throughput limitation is a federally enforceable requirement implemented through 40 CFR 63.420(c) and 428(i), and effectively creates an operating requirement which may be taken into account for estimates of *potential to emit*, as defined by IDAPA 58.01.01.006.74, 40 CFR 63.2, and 40 CFR 63.421.

5.3 Alternative Operating Scenarios

No alternative operating scenarios were requested in the permit application.

5.4 Emissions Trading

No emissions trading scenario was requested in the permit application.

5.5 Excess Emissions

Tesoro has not identified any circumstances for startup, shutdown, or maintenance that would create excess emissions. This permitting action does not include any review and incorporation of excess emissions plans in the permit.

Excess emissions are defined by IDAPA 58.01.01.006.35 as:

Emissions of any regulated air pollutant exceeding an applicable emissions standard established for any facility, source or emissions unit by statute, regulation, rule, permit, or order.
[4-23-99]

IDAPA 58.01.01.130-136 addresses the applicable regulations for excess emissions procedures. Section 2. - Permit Conditions of the permit incorporates these requirements.

5.6 Affected States Notice and Review

IDAPA 58.01.01.008.01, defines *affected states* as:

"All States:

- a. Whose air quality may be affected by the emissions of the Tier I source and that are contiguous to Idaho; or*
- b. That are within 50 miles of the Tier I source."*

5.7 Non-Applicable Requirements

Non-applicable requirements that are intended to qualify for protection under the general permit shield must meet each of the following requirements, as listed in IDAPA 58.01.01.325.01(b):

IDAPA 58.01.01.325.01(b).

Non-applicable requirements. For a requirement to be a non-applicable requirement, all of the following criteria must be met:

- i. The permittee must have provided the information required by Subsection 314.08.b. in the application.*
- ii. The requirement must be specifically identified in the Tier I operating permit as a non-applicable requirement.*
- iii. The requirement must have been determined by the Department, in writing and in acting on the permit application or revision, to not be applicable to the Tier I source.*
- iv. Tier I operating permit must include the Department's determination or a concise summary thereof.*

Tesoro has not requested the requirements listed below to be formally included in the Tier I operating permit as non-applicable requirements. Rather the information provided by Tesoro has been reviewed with the intent of determining whether or not applicability to these requirements has been triggered.

5.7.1 New Source Performance Standards (NSPS) - Subpart K, Ka (Storage Vessels for Petroleum Liquids) and Kb (Storage Vessels for Volatile Organic Liquids [Including Petroleum Liquids]).

Applicability of these Subparts is based on whether the emissions unit in question was constructed, modified, or reconstructed within the dates specified by the Standard of Performance and stores an organic liquid of a volatility defined by vapor pressure that exceeds a defined threshold.

Table 5.1 NEW SOURCE PERFORMANCE STANDARDS

| 40 CFR 60 Subpart | Construction, Reconstruction, or Modification Date |
|-------------------|---|
| K | 40,000 to 65,000 gallons capacity - March 8, 1974 to May 19, 1978; and > 65,000 gallons capacity - June 11, 1973 to May 19, 1978 |
| Ka | > 40,000 gallons capacity - after May 18, 1978 |
| Kb | > 40 cubic meters - after July 23, 1984 |

Table 5.2 CONSTRUCTION DATES AND SIZES OF TANKS

| Tank ID No. | Date of Construction | Storage Capacity (Gallons) | Tank Type | Product Type |
|-------------|---|---|--|---|
| TK 1001 | 1950 | 1,239,000 | Internal Floating Roof Vertical Orientation | Gasoline (less volatile distillates also allowed) |
| TK 1002 | 1950 | 2,037,000 | Internal Floating Roof Vertical Orientation | Gasoline (less volatile distillates also allowed) |
| TK 1003 | 1950 | 1,365,000 | Fixed Roof Horizontal Orientation | Distillate Products |
| TK 1004 | 1950 (initial Construction); 1/24/1989 (modified to store gasoline); 8/17/1993 (following fire damage, repaired to meet fixed roof tank standards only) | 777,000 (working capacity) 860,000 (shell height capacity) | Fixed Roof Horizontal Orientation | Distillate Products |
| TK 1005 | 1950 | 42,000 | Fixed Roof Horizontal Orientation | Recoverable Hydrocarbons (gasoline, and/or distillate products, and/or water) |
| TK 1006 | Not listed | 5,876 | Fixed Roof Horizontal Orientation | Gasoline and Distillates |
| TK 1007 | Not listed | 300 | Fixed Roof Horizontal Orientation | Distillates |
| TK1008 | Not listed | 4,000 | Fixed Roof Horizontal Orientation | Chemical Additives |
| TK 1009 | Not listed | 4,000 | Fixed Roof Horizontal Orientation | Chemical Additives |
| TK 1010 | Not listed | 6,000 | Fixed Roof Horizontal Orientation | Chemical Additives |
| TK 1011 | Not listed | 2,000 | Fixed Roof Horizontal Orientation | Chemical Additives |
| TK 1012 | Not listed | 3,000 | Fixed Roof Horizontal Orientation | Chemical Additives |

In order for the NSPS subparts to be non-applicable, the individual storage tanks must not have been initially constructed, undergone a *modification* as defined by 40 CFR 60.14, or a *reconstruction* as defined by 40 CFR 60.15. Tesoro has not identified that either a modification or reconstruction of the storage tanks has occurred since initial construction in 1950. The basis for this determination must be made using the definitions in the New Source Performance Standards. Therefore, it is the Department's interpretation that the emissions units have never undergone a modification or reconstruction that would make any of them subject to any standard or reporting requirement for any New Source Performance Standards as listed in 40 CFR Part 60.

The permitting analysis listed in Section 5.1.4 and 5.8 discusses the regulatory status of Tank 1004, including the NSPS – Subpart Kb requirements from PTC 031-00017, issued April 16, 2002.

5.7.2 Clean Air Act Section 112(r) Risk Management Plan

On January 6, 1998, the EPA published the final rule for 40 CFR Part 68 - List of Regulated Substances and Thresholds for Accidental Release Prevention in the federal register. Gasoline as a substance, has been exempted from the requirement of submitting a formal risk management plan. The summary of this action can be found on the EPA website at the following site address at (as of this memo's date):

<http://www.epa.gov/fedrgstr/EPA-AIR/1998/January/Day-06/a267.htm>

This exemption was contained in the January 6, 1998 Volume 63, Number 3 of the Federal Register. The risk management plan applicability threshold listed in 40 CFR 68.115(b) was modified to exempt flammable substances in gasoline used as fuel for internal combustion engines. Thus, if the substances are exempted from any applicability determination, it is not subject to the risk management plan's reporting requirement. The basis for this exemption is laid out as follows:

40 CFR 68 - Subpart F - Regulated Substances for Accidental Release Prevention establishes the list of the substances that are subject to the 112(r) Risk Management Plan requirements. Section 40 CFR 60.115(b) states:

"For the purposes of determining whether more than a threshold quantity of a regulated substance is present at a stationary source, the following exemptions apply:"

"40 CFR 68.115(b)(2)(ii) Gasoline. Regulated substances in gasoline, when in distribution or related storage for use as fuel for internal combustion engines, need not be considered when determining whether more than a threshold quantity is present at a stationary source."

5.8 Permit to Construct #031-00017

A revision to PTC No. 031-00017 was issued on April 16, 2002. The PTC establishes the current applicable requirements for Tank 1004. The storage tank is allowed to store distillate fuels equal to or less volatile than jet kerosene. Monitoring and record keeping are required by the permit to establish compliance with the fuel type limitation. The requirements of the PTC were included verbatim in the Tier I operating permit as Permit Conditions 3.1, 3.2, and 3.3.

6. INSIGNIFICANT ACTIVITIES

The following activities/sources have been declared conditionally exempt based upon size, production rate, or potential to emit regulated air pollutants:

Table 6.1 CONDITIONALLY EXEMPT INSIGNIFICANT ACTIVITIES

| Emissions Unit or Process | Potential Emissions | Insignificant Activities Citation IDAPA 58.01.01.317.01(b)(30) | Insignificant Activities Description |
|---------------------------|--|--|---|
| TK 1006 | 0.18 T/yr of VOCs and 0.01 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 1007 | 0.05 T/yr of VOCs and 0.00 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 1008 | 0.00 T/yr of VOCs and 0.00 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 1009 | 0.00 T/yr of VOCs and 0.00 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 1010 | 0.00 T/yr of VOCs and 0.00 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 1011 | 0.00 T/yr of VOCs and 0.00 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 1012 | 0.00 T/yr of VOCs and 0.00 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |

Several of the storage tanks listed above qualify for insignificant activities under the following citations, which are not included in the table above. They apply to certain processes where the process material has a low volatility; or, the exemption citation applies if the emissions unit or activity is insignificant if it meets storage capacity limitations.

The exemption criteria for IDAPA 58.01.01.317.01(b)(i)(30) has been met, and the emission units or activities will be included in the Tier I operating permit.

Table 6.2 OTHER CONDITIONALLY EXEMPT INSIGNIFICANT ACTIVITIES

| Emissions Unit or Process | Potential Emissions | Insignificant Activities Citation IDAPA 58.01.01.317.01(b)(1) | Insignificant Activities Description |
|--|---|---|--|
| Loading Rack – Distillate Fuel Loading | 0.47 T/yr VOCs (HAPs emissions will be inherently less than emissions of VOCS) | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any individual HAP |
| Fugitive Emissions – Valves, Flanges, Piping, etc. | 0.34 T/yr VOCs (HAPs emissions will be inherently less than emissions of VOCS) | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any individual HAP |
| Remediation Activities | Remediation unit's Permit to Construct contains only toxic air pollutants emission limits below the 1 T/yr cutoff per individual HAP- No other criteria air pollutant emission limits | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any individual HAP |

There are no applicable requirements for these insignificant activities. Therefore, no specific permit terms or conditions exist in the permit for these sources/activities. They are listed in the permit to be afforded a permit shield. The table below lists the activities that were listed as insignificant activities. *Insignificant activities* are defined by IDAPA 58.01.01.008.09, as "Those activities that qualify as insignificant in accordance with Section 317." IDAPA 58.01.01.317.01(b)(i) requires that each of the emissions units or activities are listed in the permit application. The application should also include the information necessary to verify that the insignificance criteria are satisfied. DEQ is unable to incorporate the maintenance activities in the Tier I operating permit as insignificant, due to the unavailability of the information used to establish it as an insignificant activity. The maintenance activities and the building furnace would be included in the permit and would qualify for the permit shield if the necessary information had been received during the public comment period.

Remediation Activities

The remediation activities consist of an air sparging and soil venting system to remove hydrocarbon contamination in the soil to prevent contamination of the Snake River, located near the facility. The system is currently shut down according to Tesoro personnel. However, the emissions unit was included in the calendar year 2001 registration fee submittal with VOC emissions equal to 4.38 T/yr, without clarification of whether this value reflects estimated actual emissions or potential emissions. That level of VOC emissions listed in the fee report exceeds the threshold criteria of 4 T/yr specified in IDAPA 58.01.01.317.0(b)(i)(30).

If the emissions unit is ever operated again such that actual or potential emissions exceed the levels specified by IDAPA 58.01.01.317.01(b)(i)(30), the emissions unit will not meet the criteria for the insignificant activity and must comply with the requirements for a source operated at a Title V facility. Tesoro is required to notify DEQ in the annual compliance certification whether or not the remediation unit still qualifies as insignificant. Additional permitting and compliance requirements will apply if the insignificance criteria are not complied with.

Table 6.2 REQUESTED INSIGNIFICANT ACTIVITIES NOT INCLUDED IN THE PERMIT

| Emissions Unit or Process | Potential Emissions | Insignificant Activities - IDAPA 58.01.01.317.01(b)(1) | Insignificant Activities - Description |
|----------------------------------|-------------------------------|---|--|
| Facility Maintenance Activities | Not Listed in the Application | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any individual HAP |
| Building Furnace | Not Listed in the Application | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any individual HAP |

The building furnace is subject to the grain loading standard per IDAPA 58.01.01.677. Facility maintenance activities are subject to the excess emissions requirements specified by IDAPA 58.01.01.130-136. Emissions that occur as a result of maintenance activities should be minimized to the extent possible using best management practices specific to the petroleum product distribution industry.

7. ALTERNATIVE OPERATING SCENARIOS

The permittee has not requested any alternative operating scenarios.

8. TRADING SCENARIOS

The permittee has not requested any emissions trading scenarios.

9. COMPLIANCE PLAN AND COMPLIANCE CERTIFICATIONS

9.1 Compliance Plans

Tesoro certified compliance with all applicable requirements. No compliance plan was submitted.

9.2 Compliance Certification

Tesoro is required to periodically certify compliance in accordance with General Permit Provision 21.

10. ACID RAIN PERMIT

This facility is not and does not contain an acid rain source. Acid rain permitting requirements do not apply.

11. AIRS DATABASE

AIRS/AFS FACILITY-WIDE CLASSIFICATION DATA ENTRY FORM

| AIR PROGRAM | SIP | PSD | NSPS (Part 60) | NESHAP (Part 61) | MACT (Part 63) | TITLE V | AREA CLASSIFICATION A - Attainment U - Unclassifiable N - Nonattainment |
|-------------------|-----|--------------|--------------------|---------------------|-------------------|------------|---|
| POLLUTANT | | | | | | | |
| SO ₂ | B | | | | | | U |
| NO _x | B | | | | | | U |
| CO | B | | | | | | U |
| PM ₁₀ | B | | | | | | U |
| PT (Particulate) | B | | | | | | U |
| VOC | A | X | A | | | A | U |
| THAP (Total HAPs) | SM | | | | SM | SM | |
| | | | APPLICABLE SUBPART | | | | |
| | | | Kb | | R | | |

per Bill R
1/10/03

* The facility's potential to emit VOCs is based on federally enforceable 40 CFR 63-Subpart R exemption limits on throughputs. The facility is not subject to PSD BACT requirements at this time.

AIRS/AFS CLASSIFICATION CODES:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 ton-per-year (T/yr) threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

12. REGISTRATION FEES

This facility is a major facility as defined by IDAPA 58.01.01.008.10; therefore, registration and registration fees, in accordance with IDAPA 58.01.01.387, apply.

13. RECOMMENDATION

Based on the Tier I operating permit application and review of the federal and state rules, staff recommends that DEQ issue final Tier I operating permit No. 031-00017 to Tesoro Refining and Marketing Company for their facility near Burley, Idaho.

14. AIRS FACILITY SUBCLASSIFICATION

ABBREVIATED AIRS DATA ENTRY SHEET

| | | | |
|--|-----------------------------|--------------------------------------|--|
| Name of Facility: | Tesoro Oil Company (Burley) | | |
| AIRS/Permit No: | 031-00017 | | |
| Permit Issue Date: | September 11, 2002 | | |
| Source/Emissions Unit Name (25 spcs) (Please Use Name As Indicated In Permit) | SCC No. (8 digit No.) | Air Program (SIP/NESHAP/NSPS/PSD) | |
| Petroleum Product Storage Tanks (Gasoline and Other Distillates) Tanks No. | 40300201 | SIP | |
| Distillate Fuel Oil Storage Tanks (Other distillates) Tanks No. | 40300207 | SIP | |
| Loading Rack – Gasoline Service | 40600126 | SIP | |
| Loading Rack – Distillate Fuel Service | 40600131 | SIP | |
| Soil Remediation Unit | 30622201 | SIP | |

DM/ik Project No. T1-010918 AIR.SSTV.V006.0402.470 G:\Air Quality\Stationary Source\SS Ltd\T1\Tesoro Burley\Final\Tesoro Burley Final TM.doc

CC: Bill Allred, Twin Falls Regional Office
Sherry Davis, Technical Services
Laurie Kral, EPA Region 10
Joan Lechtenberg, Air Quality Division

APPENDIX A

40 CFR 63 - SUBPART R

BULK GASOLINE DISTRIBUTION MACT STANDARD

(last edited July 1998)

Subpart R—National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)

SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.

§ 63.420 Applicability.

(a) The affected source to which the provisions of this subpart apply is each bulk gasoline terminal, except those bulk gasoline terminals:

(1) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the result, E_T , of the following equation is less than 1, and complies with requirements in paragraphs (c), (d), (e), and (f) of this section:

$$E_T = CF[0.59(T_F)(1-CE) + 0.17(T_E) + 0.08(T_{ES}) + 0.038(T_I) + 8.5 \times 10^{-6}(C) + KQ] + 0.04(OE)$$

where:

E_T = emissions screening factor for bulk gasoline terminals;

CF = 0.161 for bulk gasoline terminals and pipeline breakout stations that do not handle any reformulated or oxygenated gasoline containing 7.6 percent by volume or greater methyl tertiary butyl ether (MTBE), OR

CF = 1.0 for bulk gasoline terminals and pipeline breakout stations that handle reformulated or oxygenated gasoline containing 7.6 percent by volume or greater MTBE;

CE = control efficiency limitation on potential to emit for the vapor processing system used to control emissions from fixed-roof gasoline storage vessels (value should be added in decimal form (percent divided by 100));

T_F = total number of fixed-roof gasoline storage vessels without an internal floating roof;

T_E = total number of external floating roof gasoline storage vessels with only primary seals;

T_{ES} = total number of external floating roof gasoline storage vessels with primary and secondary seals;

T_I = total number of fixed-roof gasoline storage vessels with an internal floating roof;

C = number of valves, pumps, connectors, loading arm valves, and open-ended lines in gasoline service;

Q = gasoline throughput limitation on potential to emit or gasoline throughput limit in compliance with paragraphs (c), (d), and (f) of this section (liters/day);

K = 4.52×10^{-6} for bulk gasoline terminals with uncontrolled loading racks (no vapor collection and processing systems), OR

K = $(4.5 \times 10^{-6})(EF + L)$ for bulk gasoline terminals with controlled loading racks (loading racks that have vapor collection and processing systems installed on the emission stream);

EF = emission rate limitation on potential to emit for the gasoline cargo tank loading rack vapor processor outlet emissions (mg of total organic compounds per liter of gasoline loaded);

OE = other HAP emissions screening factor for bulk gasoline terminals or pipeline breakout stations (tons per year). OE equals the total HAP from other emission sources not specified in parameters in the equations for E_T or E_P . If the value of $0.04(OE)$ is greater than 5 percent of either E_T or E_P , then paragraphs (a)(1) and (b)(1) of this section shall not be used to determine applicability;

L = 13 mg/l for gasoline cargo tanks meeting the requirement to satisfy the test criteria for a vapor-tight gasoline tank truck in § 60.501 of this chapter, OR

L = 304 mg/l for gasoline cargo tanks not meeting the requirement to satisfy the test criteria for a vapor-tight gasoline tank truck in § 60.501 of this chapter; or

(2) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the facility is not a major source, or is not located within a contiguous area and under common control of a facility that is a major source, as defined in § 63.2 of subpart A of this part.

(b) The affected source to which the provisions of this subpart apply is each pipeline breakout station, except those pipeline breakout stations:

(1) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the result, E_P , of the following equation is less than 1, and complies with requirements in paragraphs (c), (d), (e), and (f) of this section:

$$E_P = CF[6.7(T_F)(1-CE) + 0.21(T_E) + 0.093(T_{ES}) + 0.1(T_I) + 5.31 \times 10^{-6}(C)] + 0.04(OE);$$

where:

EP = emissions screening factor for pipeline breakout stations,

and the definitions for CF , T_F , CE , T_E , T_{ES} , T_I , C , and OE are the same as provided in paragraph (a)(1) of this section; or

(2) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the facility is not a major source, or is not located within a contiguous area and under common control of a facility that is a major source, as defined in § 63.2 of subpart A of this part.

(c) A facility for which the results, E_T or E_P , of the calculation in paragraph (a)(1) or (b)(1) of this section has been documented and is less than

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1.0 but greater than or equal to 0.50, is exempt from the requirements of this subpart, except that the owner or operator shall:

(1) Operate the facility such that none of the facility parameters used to calculate results under paragraph (a)(1) or (b)(1) of this section, and approved by the Administrator, is exceeded in any rolling 30-day period; and

(2) Maintain records and provide reports in accordance with the provisions of § 63.428(i).

(d) A facility for which the results, E_T or E_P , of the calculation in paragraph (a)(1) or (b)(1) of this section has been documented and is less than 0.50, is exempt from the requirements of this subpart, except that the owner or operator shall:

(1) Operate the facility such that none of the facility parameters used to calculate results under paragraph (a)(1) or (b)(1) of this section is exceeded in any rolling 30-day period; and

(2) Maintain records and provide reports in accordance with the provisions of § 63.428(j).

(e) The provisions of paragraphs (a)(1) and (b)(1) of this section shall not be used to determine applicability to bulk gasoline terminals or pipeline breakout stations that are either:

(1) Located within a contiguous area and under common control with another bulk gasoline terminal or pipeline breakout station, or

(2) Located within a contiguous area and under common control with other sources not specified in paragraphs (a)(1) or (b)(1) of this section, that emit or have the potential to emit a hazardous air pollutant.

(f) Upon request by the Administrator, the owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of any paragraphs in this section including, but not limited to, the parameters and assumptions used in the applicable equation in paragraph (a)(1) or (b)(1) of this section, shall demonstrate compliance with those paragraphs.

(g) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart that is also subject to applicable provisions of 40 CFR part 60, subpart Kb or XX of this chapter shall comply only with the provisions in each subpart that contain the most stringent control requirements for that facility.

(h) Each owner or operator of an affected source bulk gasoline terminal or pipeline breakout station is subject to the provisions of 40 CFR part 63, subpart A—General Provisions, as indicated in Table 1.

(i) A bulk gasoline terminal or pipeline breakout station with a Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery complying with subpart CC, §§ 63.646, 63.648, 63.649, and

63.650 is not subject to subpart R standards, except as specified in subpart CC, § 63.650.

(j) *Rules Stayed for Reconsideration.* Notwithstanding any other provision of this subpart, the December 14, 1995 compliance date for existing facilities in § 63.424(e) and § 63.428(a), (i)(1), and (j)(1) of this subpart is stayed from December 8, 1995, to March 7, 1996.

[59 FR 64318, Dec. 14, 1994, as amended at 60 FR 43260, Aug. 18, 1995; 60 FR 62992, Dec. 8, 1995; 62 FR 9092, Feb. 28, 1997]

§ 63.421 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act; in subparts A, K, Ka, Kb, and XX of part 60 of this chapter; or in subpart A of this part. All terms defined in both subpart A of part 60 of this chapter and subpart A of this part shall have the meaning given in subpart A of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Bulk gasoline terminal means any gasoline facility which receives gasoline by pipeline, ship or barge, and has a gasoline throughput greater than 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State or local law and discoverable by the Administrator and any other person.

Controlled loading rack, for the purposes of § 63.420, means a loading rack equipped with vapor collection and processing systems that reduce displaced vapor emissions to no more than 80 milligrams of total organic compounds per liter of gasoline loaded, as measured using the test methods and procedures in § 60.503 (a) through (c) of this chapter.

Equipment means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in the gasoline liquid transfer and vapor collection systems. This definition also includes the entire vapor processing system except the exhaust port(s) or stack(s).

Gasoline cargo tank means a delivery tank truck or railcar which is loading gasoline or which has loaded gasoline on the immediately previous load.

In gasoline service means that a piece of equipment is used in a system that transfers gasoline or gasoline vapors.

Limitation(s) on potential to emit means limitation(s) limiting a source's potential to emit as defined in § 63.2 of subpart A of this part.

Operating parameter value means a value for an operating or emission parameter of the vapor processing system (e.g., temperature) which, if

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maintained continuously by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with the applicable emission standard. The operating parameter value is determined using the procedures outlined in § 63.425(b).

Oxygenated gasoline means the same as defined in 40 CFR 80.2(rr).

Pipeline breakout station means a facility along a pipeline containing storage vessels used to relieve surges or receive and store gasoline from the pipeline for reinjection and continued transportation by pipeline or to other facilities.

Reformulated gasoline means the same as defined in 40 CFR 80.2(ec).

Uncontrolled loading rack means a loading rack used to load gasoline cargo tanks that is not a controlled loading rack.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in § 63.425(e), and which is subject at all times to the test requirements in § 63.425 (f), (g), and (h).

Volatile organic liquid (VOL) means, for the purposes of this subpart, gasoline.

[59 FR 64318, Dec. 14, 1994, as amended at 62 FR 9093, Feb. 28, 1997]

§ 63.422 Standards: Loading racks.

(a) Each owner or operator of loading racks at a bulk gasoline terminal subject to the provisions of this subpart shall comply with the requirements in § 60.502 of this chapter except for paragraphs (b), (c), and (j) of that section. For purposes of this section, the term "affected facility" used in § 60.502 of this chapter means the loading racks that load gasoline cargo tanks at the bulk gasoline terminals subject to the provisions of this subpart.

(b) Emissions to the atmosphere from the vapor collection and processing systems due to the loading of gasoline cargo tanks shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded.

(c) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall comply with § 60.502(e) of this chapter as follows:

(1) For the purposes of this section, the term "tank truck" as used in § 60.502(e) of this chapter means "cargo tank."

(2) Section 60.502(e)(3) of this chapter is changed to read: The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that:

(i) The gasoline cargo tank meets the applicable test requirements in § 63.425(e);

(ii) For each gasoline cargo tank failing the test in § 63.425 (f) or (g) at the facility, the cargo tank either:

(A) Before repair work is performed on the cargo tank, meets the test requirements in § 63.425 (g) or (h), or

(B) After repair work is performed on the cargo tank before or during the tests in § 63.425 (g) or (h), subsequently passes the annual certification test described in § 63.425(e).

(d) Each owner or operator shall meet the requirements in all paragraphs of this section as expeditiously as practicable, but no later than December 15, 1997, at existing facilities and upon startup for new facilities.

[59 FR 64318, Dec. 14, 1994; 60 FR 32913, June 26, 1995]

§ 63.423 Standards: Storage vessels.

(a) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall equip each gasoline storage vessel with a design capacity greater than or equal to 75 m³ according to the requirements in § 60.112b(a) (1) through (4) of this chapter, except for the requirements in §§ 60.112b(a)(1) (iv) through (ix) and 60.112b(a)(2)(ii) of this chapter.

(b) Each owner or operator shall equip each gasoline external floating roof storage vessel with a design capacity greater than or equal to 75 m³ according to the requirements in § 60.112b(a)(2)(ii) of this chapter if such storage vessel does not currently meet the requirements in paragraph (a) of this section.

(c) Each gasoline storage vessel at existing bulk gasoline terminals and pipeline breakout stations shall be in compliance with the requirements in paragraphs (a) and (b) of this section as expeditiously as practicable, but no later than December 15, 1997. At new bulk gasoline terminals and pipeline breakout stations, compliance shall be achieved upon startup.

§ 63.424 Standards: Equipment leaks.

(a) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall perform a monthly leak inspection of all equipment in gasoline service. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. Each piece of equipment shall be inspected during the loading of a gasoline cargo tank.

(b) A log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log shall contain a list, summary description, or diagram(s)

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showing the location of all equipment in gasoline service at the facility.

(c) Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in paragraph (d) of this section.

(d) Delay of repair of leaking equipment will be allowed upon a demonstration to the Administrator that repair within 15 days is not feasible. The owner or operator shall provide the reason(s) a delay is needed and the date by which each repair is expected to be completed.

(e) Initial compliance with the requirements in paragraphs (a) through (d) of this section shall be achieved by existing sources as expeditiously as practicable, but no later than December 15, 1997. For new sources, initial compliance shall be achieved upon startup.

(f) As an alternative to compliance with the provisions in paragraphs (a) through (d) of this section, owners or operators may implement an instrument leak monitoring program that has been demonstrated to the Administrator as at least equivalent.

(g) Owners and operators shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- (1) Minimize gasoline spills;
- (2) Clean up spills as expeditiously as practicable;
- (3) Cover all open gasoline containers with a gasketed seal when not in use;
- (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

[59 FR 64318, Dec. 14, 1994, as amended at 61 FR 7723, Feb. 29, 1996]

§ 63.425 Test methods and procedures.

(a) Each owner or operator subject to the emission standard in § 63.422(b) or § 60.112b(a)(3)(ii) of this chapter shall conduct a performance test on the vapor processing system according to the test methods and procedures in § 60.503, except a

reading of 500 ppm shall be used to determine the level of leaks to be repaired under § 60.503(b). If a flare is used to control emissions, and emissions from this device cannot be measured using these methods and procedures, the provisions of § 63.11(b) shall apply.

(b) For each performance test conducted under paragraph (a) of this section, the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the following procedure:

(1) During the performance test, continuously record the operating parameter under § 63.427(a);

(2) Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations; and

(3) Provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in § 63.422(b) or § 60.112b(a)(3)(ii) of this chapter.

(c) For performance tests performed after the initial test, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test.

(d) The owner or operator of each gasoline storage vessel subject to the provisions of § 63.423 shall comply with § 60.113b of this chapter. If a closed vent system and control device are used, as specified in § 60.112b(a)(3) of this chapter, to comply with the requirements in § 63.423, the owner or operator shall also comply with the requirements in paragraph (b) of this section.

(e) *Annual certification test.* The annual certification test for gasoline cargo tanks shall consist of the following test methods and procedures:

(1) Method 27, appendix A, 40 CFR part 60. Conduct the test using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (P_i) for the pressure test shall be 460 mm H₂O (18 in. H₂O), gauge. The initial vacuum (V_i) for the vacuum test shall be 150 mm H₂O (6 in. H₂O), gauge. The maximum allowable pressure and vacuum changes (Δp , Δv) are as shown in the second column of Table 2 of this paragraph.

TABLE 2—ALLOWABLE CARGO TANK TEST PRESSURE OR VACUUM CHANGE

| Cargo tank or compartment capacity, liters (gal) | Annual certification-allowable pressure or vacuum change (Δp , Δv) in 5 minutes, mm H ₂ O (in. H ₂ O) | Allowable pressure change (Δp) in 5 minutes at any time, mm H ₂ O (in. H ₂ O) |
|--|---|---|
| 9,484 or more (2,500 or more) | 25 (1.0) | 64 (2.5) |
| 9,483 to 5,678 (2,499 to 1,500) | 36 (1.5) | 78 (3.0) |
| 5,679 to 3,785 (1,499 to 1,000) | 51 (2.0) | 88 (3.5) |
| 3,782 or less (999 or less) | 64 (2.5) | 102 (4.0) |

(2) Pressure test of the cargo tank's internal vapor valve as follows:

(i) After completing the tests under paragraph (e)(1) of this section, use the procedures in Method 27 to repressurize the tank to 460 mm H₂O (18 in. H₂O), gauge. Close the tank's internal vapor valve(s), thereby isolating the vapor return line and manifold from the tank.

(ii) Relieve the pressure in the vapor return line to atmospheric pressure, then reseal the line. After 5 minutes, record the gauge pressure in the vapor return line and manifold. The maximum allowable 5-minute pressure increase is 130 mm H₂O (5 in. H₂O).

(f) *Leak detection test.* The leak detection test shall be performed using Method 21, appendix A, 40 CFR part 60, except omit section 4.3.2 of Method 21. A vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph.

(1) The leak definition shall be 21,000 ppm as propane. Use propane to calibrate the instrument, setting the span at the leak definition. The response time to 90 percent of the final stable reading shall be less than 8 seconds for the detector with the sampling line and probe attached.

(2) In addition to the procedures in Method 21, include the following procedures:

(i) Perform the test on each compartment during loading of that compartment or while the compartment is still under pressure.

(ii) To eliminate a positive instrument drift, the dwell time for each leak detection shall not exceed two times the instrument response time. Purge the instrument with ambient air between each leak detection. The duration of the purge shall be in excess of two instrument response times.

(iii) Attempt to block the wind from the area being monitored. Record the highest detector reading and location for each leak.

(g) *Nitrogen pressure decay field test.* For those cargo tanks with manifolded product lines, this test procedure shall be conducted on each compartment.

(1) Record the cargo tank capacity. Upon completion of the loading operation, record the total

volume loaded. Seal the cargo tank vapor collection system at the vapor coupler. The sealing apparatus shall have a pressure tap. Open the internal vapor valve(s) of the cargo tank and record the initial headspace pressure. Reduce or increase, as necessary, the initial headspace pressure to 460 mm H₂O (18.0 in. H₂O), gauge by releasing pressure or by adding commercial grade nitrogen gas from a high pressure cylinder capable of maintaining a pressure of 2,000 psig.

(i) The cylinder shall be equipped with a compatible two-stage regulator with a relief valve and a flow control metering valve. The flow rate of the nitrogen shall be no less than 2 cfm. The maximum allowable time to pressurize cargo tanks with headspace volumes of 1,000 gallons or less to the appropriate pressure is 4 minutes. For cargo tanks with a headspace of greater than 1,000 gallons, use as a maximum allowable time to pressurize 4 minutes or the result from the equation below, whichever is greater.

$$T = V_h \times 0.004$$

where:

T = maximum allowable time to pressurize the cargo tank, min;

V_h = cargo tank headspace volume during testing, gal.

(2) It is recommended that after the cargo tank headspace pressure reaches approximately 460 mm H₂O (18 in. H₂O), gauge, a fine adjust valve be used to adjust the headspace pressure to 460 mm H₂O (18.0 in. H₂O), gauge for the next 30 ± 5 seconds.

(3) Reseal the cargo tank vapor collection system and record the headspace pressure after 1 minute. The measured headspace pressure after 1 minute shall be greater than the minimum allowable final headspace pressure (P_F) as calculated from the following equation:

$$ER26/N95.000$$

where:

(P_F) = minimum allowable final headspace pressure, in. H₂O, gauge;

V_s = total cargo tank shell capacity, gal;

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V_h = cargo tank headspace volume after loading, gal;

18.0 = initial pressure at start of test, in. H_2O , gauge;

N = 5-minute continuous performance standard at any time from the third column of Table 2 of § 63.425(e)(i), inches H_2O .

(4) Conduct the internal vapor valve portion of this test by repressurizing the cargo tank headspace with nitrogen to 460 mm H_2O (18 in. H_2O), gauge. Close the internal vapor valve(s), wait for 30 ± 5 seconds, then relieve the pressure downstream of the vapor valve in the vapor collection system to atmospheric pressure. Wait 15 seconds, then reseal the vapor collection system. Measure and record the pressure every minute for 5 minutes. Within 5 seconds of the pressure measurement at the end of 5 minutes, open the vapor valve and record the headspace pressure as the "final pressure."

(5) If the decrease in pressure in the vapor collection system is less than at least one of the interval pressure change values in Table 3 of this paragraph, or if the final pressure is equal to or greater than 20 percent of the 1-minute final headspace pressure determined in the test in paragraph (g)(3) of this section, then the cargo tank is considered to be a vapor-tight gasoline cargo tank.

TABLE 3—PRESSURE CHANGE FOR INTERNAL VAPOR VALVE TEST

| Time interval | Interval pressure change, mm H_2O (in. H_2O) |
|-----------------|---|
| After 1 minute | 28 (1.1) |
| After 2 minutes | 58 (2.2) |
| After 3 minutes | 84 (3.3) |
| After 4 minutes | 112 (4.4) |
| After 5 minutes | 140 (5.5) |

(h) *Continuous performance pressure decay test.* The continuous performance pressure decay test shall be performed using Method 27, appendix A, 40 CFR Part 60. Conduct only the positive pressure test using a time period (t) of 5 minutes. The initial pressure (P_i) shall be 460 mm H_2O (18 in. H_2O), gauge. The maximum allowable 5-minute pressure change (Δp) which shall be met at any time is shown in the third column of Table 2 of § 63.425(e)(1).

[59 FR 64318, Dec. 14, 1994; 60 FR 7627, Feb. 8, 1995; 60 FR 32913, June 26, 1995]

§ 63.426 Alternative means of emission limitation.

For determining the acceptability of alternative means of emission limitation for storage vessels

under § 63.423, the provisions of § 60.114b of this chapter apply.

§ 63.427 Continuous monitoring.

(a) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section, except as allowed in paragraph (a)(5) of this section.

(1) Where a carbon adsorption system is used, a continuous emission monitoring system (CEMS) capable of measuring organic compound concentration shall be installed in the exhaust air stream.

(2) Where a refrigeration condenser system is used, a continuous parameter monitoring system (CPMS) capable of measuring temperature shall be installed immediately downstream from the outlet to the condenser section. Alternatively, a CEMS capable of measuring organic compound concentration may be installed in the exhaust air stream.

(3) Where a thermal oxidation system is used, a CPMS capable of measuring temperature shall be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.

(4) Where a flare is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, shall be installed in proximity to the pilot light to indicate the presence of a flame.

(5) Monitoring an alternative operating parameter or a parameter of a vapor processing system other than those listed in this paragraph will be allowed upon demonstrating to the Administrator's satisfaction that the alternative parameter demonstrates continuous compliance with the emission standard in § 63.422(b) or § 60.112b(a)(3)(ii) of this chapter.

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall operate the vapor processing system in a manner not to exceed the operating parameter value for the parameter described in paragraphs (a)(1) and (a)(2) of this section, or to go below the operating parameter value for the parameter described in paragraph (a)(3) of this section, and established using the procedures in § 63.425(b). In cases where an alternative parameter pursuant to paragraph (a)(5) of this section is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value. Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as specified above,

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shall constitute a violation of the emission standard in § 63.422(b).

(c) Each owner or operator of gasoline storage vessels subject to the provisions of § 63.423 shall comply with the monitoring requirements in § 60.116b of this chapter, except records shall be kept for at least 5 years. If a closed vent system and control device are used, as specified in § 60.112b(a)(3) of this chapter, to comply with the requirements in § 63.423, the owner or operator shall also comply with the requirements in paragraph (a) of this section.

§ 63.428 Reporting and recordkeeping.

(a) The initial notifications required for existing affected sources under § 63.9(b)(2) shall be submitted by 1 year after an affected source becomes subject to the provisions of this subpart or by December 16, 1996, whichever is later. Affected sources that are major sources on December 16, 1996 and plan to be area sources by December 15, 1997 shall include in this notification a brief, non-binding description of and schedule for the action(s) that are planned to achieve area source status.

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall keep records of the test results for each gasoline cargo tank loading at the facility as follows:

(1) Annual certification testing performed under § 63.425(e); and

(2) Continuous performance testing performed at any time at that facility under § 63.425 (f), (g), and (h).

(3) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:

(i) Name of test:

Annual Certification Test—Method 27 (§ 63.425(e)(1)).

Annual Certification Test—Internal Vapor Valve (§ 63.425(e)(2)).

Leak Detection Test (§ 63.425(f)).

Nitrogen Pressure Decay Field Test (§ 63.425(g)), or

Continuous Performance Pressure Decay Test (§ 63.425(h)).

(ii) Cargo tank owner's name and address.

(iii) Cargo tank identification number.

(iv) Test location and date.

(v) Tester name and signature.

(vi) Witnessing inspector, if any: Name, signature, and affiliation.

(vii) Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing.

(viii) Test results: Pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument and leak definition.

(c) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall:

(1) Keep an up-to-date, readily accessible record of the continuous monitoring data required under § 63.427(a). This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record.

(2) Record and report simultaneously with the notification of compliance status required under § 63.9(h):

(i) All data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under § 63.425(b); and

(ii) The following information when using a flare under provisions of § 63.11(b) to comply with § 63.422(b):

(A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted); and

(B) All visible emissions readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required under § 63.425(a).

(3) If an owner or operator requests approval to use a vapor processing system or monitor an operating parameter other than those specified in § 63.427(a), the owner or operator shall submit a description of planned reporting and recordkeeping procedures. The Administrator will specify appropriate reporting and recordkeeping requirements as part of the review of the permit application.

(d) Each owner or operator of storage vessels subject to the provisions of this subpart shall keep records and furnish reports as specified in § 60.115b of this chapter, except records shall be kept for at least 5 years.

(e) Each owner or operator complying with the provisions of § 63.424 (a) through (d) shall record the following information in the log book for each leak that is detected:

(1) The equipment type and identification number;

(2) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell);

(3) The date the leak was detected and the date of each attempt to repair the leak;

(4) Repair methods applied in each attempt to repair the leak;

(5) "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak;

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- (6) The expected date of successful repair of the leak if the leak is not repaired within 15 days; and
- (7) The date of successful repair of the leak.

(f) Each owner or operator subject to the provisions of § 63.424 shall report to the Administrator a description of the types, identification numbers, and locations of all equipment in gasoline service. For facilities electing to implement an instrument program under § 63.424(f), the report shall contain a full description of the program.

(1) In the case of an existing source or a new source that has an initial startup date before the effective date, the report shall be submitted with the notification of compliance status required under § 63.9(h), unless an extension of compliance is granted under § 63.6(i). If an extension of compliance is granted, the report shall be submitted on a date scheduled by the Administrator.

(2) In the case of new sources that did not have an initial startup date before the effective date, the report shall be submitted with the application for approval of construction, as described in § 63.5(d).

(g) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall include in a semi-annual report to the Administrator the following information, as applicable:

(1) Each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility;

(2) Periodic reports required under paragraph (d) of this section; and

(3) The number of equipment leaks not repaired within 5 days after detection.

(h) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall submit an excess emissions report to the Administrator in accordance with § 63.10(e)(3), whether or not a CMS is installed at the facility. The following occurrences are excess emissions events under this subpart, and the following information shall be included in the excess emissions report, as applicable:

(1) Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under § 63.425(b). The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS.

(2) Each instance of a nonvapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.

(3) Each reloading of a nonvapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with § 63.422(c)(2).

(4) For each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection:

- (i) The date on which the leak was detected;
- (ii) The date of each attempt to repair the leak;
- (iii) The reasons for the delay of repair; and
- (iv) The date of successful repair.

(i) Each owner or operator of a facility meeting the criteria in § 63.420(c) shall perform the requirements of this paragraph (i), all of which will be available for public inspection:

(1) Document and report to the Administrator not later than December 16, 1996 for existing facilities, within 30 days for existing facilities subject to § 63.420(c) after December 16, 1996, or at startup for new facilities the methods, procedures, and assumptions supporting the calculations for determining criteria in § 63.420(c);

(2) Maintain records to document that the facility parameters established under § 63.420(c) have not been exceeded; and

(3) Report annually to the Administrator that the facility parameters established under § 63.420(c) have not been exceeded.

(4) At any time following the notification required under paragraph (i)(1) of this section and approval by the Administrator of the facility parameters, and prior to any of the parameters being exceeded, the owner or operator may submit a report to request modification of any facility parameter to the Administrator for approval. Each such request shall document any expected HAP emission change resulting from the change in parameter.

(j) Each owner or operator of a facility meeting the criteria in § 63.420(d) shall perform the requirements of this paragraph (j), all of which will be available for public inspection:

(1) Document and report to the Administrator not later than December 16, 1996 for existing facilities, within 30 days for existing facilities subject to § 63.420(d) after December 16, 1996, or at startup for new facilities the use of the emission screening equations in § 63.420(a)(1) or (b)(1) and the calculated value of E_T or E_P ;

(2) Maintain a record of the calculations in § 63.420 (a)(1) or (b)(1), including methods, procedures, and assumptions supporting the calculations for determining criteria in § 63.420(d); and

(3) At any time following the notification required under paragraph (j)(1) of this section, and prior to any of the parameters being exceeded, the owner or operator may notify the Administrator of modifications to the facility parameters. Each such

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notification shall document any expected HAP emission change resulting from the change in parameter.

[59 FR 64318, Dec. 14, 1994, as amended at 61 FR 7723, Feb. 29, 1996; 62 FR 9093, Feb. 28, 1997]

§ 63.429 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(l) of the Act, the authority contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) The authority conferred in § 63.426 and § 63.427(a)(5) will not be delegated to any State.

TABLE 1 TO SUBPART R—GENERAL PROVISIONS APPLICABILITY TO SUBPART R

| Reference | Applies to subpart R | Comment |
|---------------------|----------------------|---|
| 63.1(a)(1) | Yes | Section reserved |
| 63.1(a)(2) | Yes | |
| 63.1(a)(3) | Yes | |
| 63.1(a)(4) | Yes | |
| 63.1(a)(5) | No | |
| 63.1(a)(6)(i) | Yes | Section reserved |
| 63.1(a)(6)(ii) | No | |
| 63.1(a)(10) | Yes | |
| 63.1(a)(11) | Yes | |
| 63.1(a)(12)-(a)(14) | Yes | |
| 63.1(b)(1) | No | Subpart R specifies applicability in § 63.420 |
| 63.1(b)(2) | Yes | Subpart R specifies reporting and recordkeeping for some large area sources in § 63.428 |
| 63.1(b)(3) | No | |
| 63.1(c)(1) | Yes | Some small sources are not subject to subpart R |
| 63.1(c)(2) | Yes | |
| 63.1(c)(3) | No | Section reserved |
| 63.1(c)(4) | Yes | |
| 63.1(c)(5) | Yes | Section reserved |
| 63.1(d) | No | |
| 63.1(e) | Yes | Additional definitions in § 63.421 |
| 63.2 | Yes | |
| 63.3(a)-(c) | Yes | Section reserved |
| 63.4(a)(1)-(a)(3) | Yes | |
| 63.4(a)(4) | No | |
| 63.4(a)(5) | Yes | |
| 63.4(b) | Yes | |
| 63.4(c) | Yes | Section reserved |
| 63.5(a)(1) | Yes | |
| 63.5(a)(2) | Yes | |
| 63.5(b)(1) | Yes | |
| 63.5(b)(2) | No | |
| 63.5(b)(3) | Yes | Section reserved |
| 63.5(b)(4) | Yes | |
| 63.5(b)(5) | Yes | |
| 63.5(b)(6) | Yes | |
| 63.5(c) | No | |
| 63.5(d)(1) | Yes | Section reserved |
| 63.5(d)(2) | Yes | |
| 63.5(d)(3) | Yes | |
| 63.5(d)(4) | Yes | |
| 63.5(e) | Yes | |
| 63.5(f)(1) | Yes | Section reserved |
| 63.5(f)(2) | Yes | |
| 63.6(a) | Yes | |
| 63.6(b)(1) | Yes | |
| 63.6(b)(2) | Yes | |
| 63.6(b)(3) | Yes | Section reserved |
| 63.6(b)(4) | Yes | |
| 63.6(b)(5) | Yes | |
| 63.6(b)(6) | No | |
| 63.6(b)(7) | Yes | |
| 63.6(c)(1) | No | Subpart R specifies the compliance date |
| 63.6(c)(2) | Yes | |

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TABLE 1 TO SUBPART R—GENERAL PROVISIONS APPLICABILITY TO SUBPART R—Continued

| Reference | Applies to subpart R | Comment |
|--------------------|----------------------|--|
| 63.6(c)(3)–(c)(4) | No | Sections reserved |
| 63.6(c)(5) | Yes | |
| 63.6(d) | No | Section reserved |
| 63.6(e) | Yes | |
| 63.6(f)(1) | Yes | |
| 63.6(f)(2) | Yes | |
| 63.6(f)(3) | Yes | |
| 63.6(g) | Yes | |
| 63.6(h) | No | Subpart R does not require COMS |
| 63.6(i)(1)–(i)(14) | Yes | |
| 63.6(j)(15) | No | Section reserved |
| 63.6(j)(16) | Yes | |
| 63.6(j) | Yes | |
| 63.7(a)(1) | Yes | |
| 63.7(a)(2) | Yes | |
| 63.7(a)(3) | Yes | |
| 63.7(b) | Yes | |
| 63.7(c) | Yes | |
| 63.7(d) | Yes | |
| 63.7(e)(1) | Yes | |
| 63.7(e)(2) | Yes | |
| 63.7(e)(3) | Yes | |
| 63.7(e)(4) | Yes | |
| 63.7(f) | Yes | |
| 63.7(g) | Yes | |
| 63.7(h) | Yes | |
| 63.8(a)(1) | Yes | |
| 63.8(a)(2) | Yes | |
| 63.8(a)(3) | No | Section reserved |
| 63.8(a)(4) | Yes | |
| 63.8(b)(1) | Yes | |
| 63.8(b)(2) | Yes | |
| 63.8(b)(3) | Yes | |
| 63.8(c)(1) | Yes | |
| 63.8(c)(2) | Yes | |
| 63.8(c)(3) | Yes | |
| 63.8(c)(4) | Yes | |
| 63.8(c)(5) | No | Subpart R does not require COMS |
| 63.8(c)(6)–(c)(8) | Yes | |
| 63.8(d) | Yes | |
| 63.8(e) | Yes | |
| 63.8(f)(1)–(f)(5) | Yes | |
| 63.8(f)(6) | Yes | |
| 63.8(g) | Yes | |
| 63.9(a) | Yes | |
| 63.9(b)(1) | Yes | |
| 63.9(b)(2) | No | Subpart R allows additional time for existing sources to submit initial notification. Sec. 63.428(a) specifies submittal by 1 year after being subject to the rule or December 16, 1995, whichever is later. |
| 63.9(b)(3) | Yes | |
| 63.9(b)(4) | Yes | |
| 63.9(b)(5) | Yes | |
| 63.9(c) | Yes | |
| 63.9(d) | Yes | |
| 63.9(e) | Yes | |
| 63.9(f) | Yes | |
| 63.9(g) | Yes | |
| 63.9(h)(1)–(h)(3) | Yes | |
| 63.9(h)(4) | No | Section reserved |
| 63.9(h)(5)–(h)(6) | Yes | |
| 63.9(i) | Yes | |
| 63.9(j) | Yes | |
| 63.10(a) | Yes | |
| 63.10(b)(1) | Yes | |

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TABLE 1 TO SUBPART R—GENERAL PROVISIONS APPLICABILITY TO SUBPART R—Continued

| Reference | Applies to subpart R | Comment |
|--------------------|----------------------|-------------------|
| 63.10(b)(2) | Yes | Sections reserved |
| 63.10(b)(3) | Yes | |
| 63.10(c)(1) | Yes | Section reserved |
| 63.10(c)(2)–(c)(4) | No | |
| 63.10(c)(5)–(c)(8) | Yes | Section reserved |
| 63.10(c)(9) | No | |
| 63.10(c)(5)–(c)(8) | Yes | Section reserved |
| 63.10(d)(1) | Yes | |
| 63.10(d)(2) | Yes | Section reserved |
| 63.10(d)(3) | Yes | |
| 63.10(d)(4) | Yes | Section reserved |
| 63.10(d)(5) | Yes | |
| 63.10(e) | Yes | Section reserved |
| 63.10(f) | Yes | |
| 63.11(a)–(b) | Yes | Section reserved |
| 63.12(a)–(c) | Yes | |
| 63.13(a)–(c) | Yes | Section reserved |
| 63.14(a)–(b) | Yes | |
| 63.15(a)–(b) | Yes | Section reserved |
| | | |

[59 FR 64318, Dec. 14, 1994, as amended at 61 FR 7724, Feb. 29, 1996]

APPENDIX B

Copy of the Supplemental Notification of Applicability of Gasoline

Distribution MACT Rule for Amoco Oil Company – Burley, Idaho Products Terminal

Letter dated December 17, 1998, from J. H. Lamanna, Business Unit Leader, Amoco Oil Company, to
US Environmental Protection Agency, Region X



Amoco Petroleum Products
Salt Lake City Business Unit
474 West 900 North
Salt Lake City, Utah 84103-1494
Telephone: (801) 521-4810
Facsimile: (801) 521-4952

December 17, 1996

US Environmental Protection Agency, Region X
Director, Air and Toxics Division
1200 Sixth Avenue
Seattle, WA 98101

Supplemental Notification of Applicability of Gasoline Distribution MACT Rule for
Amoco Oil Company - Burley, Idaho Products Terminal

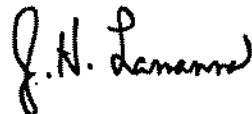
In December 1996, you were informed of the plan to use the then soon-to-be revised applicability screening equation (40 CFR Part 63.420) to assume a federally-enforceable product throughput cap which would limit this terminal's potential to emit for hazardous air pollutants to below the major source threshold.

At that time, the screening equation was in the process of being modified and a final version was not yet published. In a memo from Bruce Jordon to the ten regions, EPA approved use of the revised screening equation in the initial MACT applicability notifications required by December 16, 1996. It has come to our attention that the equation that was used in the original notification for this terminal contained a minor error, a result of supposing its final form prior to the publication of the revision published in February 1997. Correction of this error results in minor corrections in the worst-case parameters used in the screening equation evaluation with the net result of a slight decrease in allowed throughput. The Burley Terminal has continually been in compliance with this corrected equation and parameter.

The Burley Terminal will use this corrected applicability screening equation in 40 CFR Part 63 Subpart R §63.420(a)(1) to establish federally enforceable operating parameters that will limit its potential to emit to below the major source threshold. Attached is a copy of the screening equation evaluation for the terminal using the correct screening equation as revised in the February 28, 1997 Federal Register.

Should you have any questions about this notification, please do not hesitate to contact Craig Morris at (801) 521-4883.

Very truly yours,



J. H. Lamanna

Business Unit Leader

RBS/

attachment

cc: Department Of Health And Welfare
Bureau of Environmental Health and Safety
4th Floor, Towers Bldg., 450 W. State Street,
P.O. Box 83720
Boise, ID 83720-0036

| | | | | | |
|--|--|---|---|-------------------------------|--|
| Burley Terminal | | | | | |
| Amoco Oil Company | | | | | |
| Screening Equation Analysis | | | | | |
| | | | | | |
| The terminal handles conventional gasoline: CF = 0.161. | | | | | |
| Sources of OE emissions include distillate and interface management at tanks and racks, remediation, and other minor miscellaneous sources. | | | | | |
| | | | | | |
| Number of Gasoline Storage Tanks and components | | | | | |
| | | | | | |
| Fixed Roof (T _F) | Internal Floating Roof (T _I) | External Floating Roof (Primary seals only) (T _E) | External Floating Roof (Primary and secondary seals) (T _{ES}) | Total Fugitive Components (C) | |
| 0 | 2 | 0 | 0 | 550 | |
| | | | | | |
| | | | | | |
| | | | | | |
| Screening Equation | | | | | |
| $E_T = CF \cdot (0.59 \cdot T_F \cdot (1 - CE) + 0.038 \cdot T_I + 0.17 \cdot T_E + 0.08 \cdot T_{ES} + 8.5 \cdot 10^{-6} \cdot C + 4.52 \cdot 10^{-6} \cdot Q) + 0.04 \cdot OE$ | | | | | |
| | | | | | |
| | | | | | |
| At a throughput of | 124.15 | MM gallons per year | | | |
| or | 340,148 | gallons per day | | | |
| or | 1,287,461 | liters per day | | | |
| | | | | | |
| | Et = | 0.9999 | | | |
| | OE = | 1.25 | T/Y | | |

APPENDIX C

Facility-Wide Potential to Emit VOCs.

Updated TANKS 4.09b Spreadsheets

Revised Gasoline Loading Rack Emissions

Tesoro West Coast Company
Burley, Idaho
Bulk Gasoline and Petroleum Distillate Fuel Distribution Terminal

Facility Emissions Include:

- 1 Loading rack loading loss
- 2 storage tanks working loss (emptying and filling)
- 3 storage tanks standing loss
- 4 fugitive losses

Each emissions type results in volatile organic compounds emissions and hazardous air pollutant emissions

Loading Losses

$$L = 12.46 * (S * P * M) / (T)$$

L = loading loss in pounds per 1000 gallons loaded

S = saturation factor based on loading operation design (value from AP-42, Table 5.2-1)

P = true vapor pressure of liquid loaded (in pounds per square inch absolute, or psia)

M = molecular weight of vapor phase constituent (in pounds per pound mole, or lb/lb-mole)

T = bulk liquid temperature of the liquid loaded (in degrees Rankine)

GASOLINE RVP 10 (Conventional gasoline chemical makeup)

Facility throughput = 124.15 million gallons per year
340148 gallons per day

Assumptions from TANKS 4.0 on standard gasoline composition

P = 4.1 psia

M = 66 lb/lb-mole

S = 0.6 saturation factor for bottom loading and dedicated normal service
for a tank truck

T = 46.37 degrees Fahrenheit for a bulk liquid temperature (to two significant figures from Tanks 4.0)

T = 506.37 degrees Rankine for a bulk liquid temperature

Note: The ASTM slope for gasoline RVP 10 was higher, possibly contributing to the true vapor pressure in the TANKS 4.09 default RVP 10 gasoline versus the Amoco/Tesoro specified RVP 10 gasoline in the 1998 application update.

GASOLINE

| | |
|---|---|
| Loading Loss Emission Factor | 4.00 lb / 1000 gallons loaded |
| 1998 US EPA Region X Annual Reporting Throughput | 124.15 million gallons per year |
| Total Volatile Organic Compound Emissions Gasoline | 495993 lbs VOCs per year from the loading rack operation alone |
| Loading Rack PTE = | 248 Tons of VOCs per year |

DISTILLATE FUEL OIL

| | |
|--|---|
| Assumptions from TANKS 4.0 on standard distillate fuel oil (Number 2) composition | |
| P = | 0.0054 psia |
| M = | 130 lb/lb-mole |
| S = | 0.6 saturation factor for bottom loading and dedicated normal service for a tank truck |
| T = | 51 degrees Fahrenheit for a bulk liquid temperature (to two signif. figures from Tanks 4.0 |
| T = | 506.37 degrees Rankine for a bulk liquid temperature |
| Loading Loss Factor | 0.010270356 lb VOCs / 1000 gallons |
| PTE Throughput = | 175000000.00 gallons per year |
| | 1797.31 lb / year |
| | 0.90 Tons/year |

Storage Tanks Emissions

| Tank Identification | | VOC Emissions lb/year | VOC Emissions Tons/year | |
|---------------------|--------------------|-----------------------|-------------------------|---------------------------------|
| TK 1001 | Petroleum products | | 0 | |
| TK 1002 | Petroleum products | | 0 | |
| TK 1003 | Distillate | | 0 | |
| TK 1004 | Distillate | | 0.61 | Page 5-4, 1998 Tier I OP update |
| TK 1005 | | | 1.54 | Page 5-4, 1998 Tier I OP update |
| TK 2006 | Recoverable HCs | 2006 | 1.003 | |
| TK 2007 | Distillate | | 1.4 | Page 5-4, 1998 Tier I OP update |
| TK 2008 | Petroleum products | 3912 | 1.956 | |
| TK 2009 | Recoverable HCs | | 0.15 | Page 5-4, 1998 Tier I OP update |
| TK 2010 | Fuel Additives | negligible | | |
| TK 2011 | Fuel Additives | negligible | | |
| TK 2012 | Fuel Additives | negligible | | |
| TK 2013 | Fuel Additives | negligible | | |
| TK 2014 | Fuel Additives | negligible | | |
| TK 2015 | Fuel Additives | negligible | | |
| TK 2016 | Fuel Additives | negligible | | |

| | |
|-------------------------|-------|
| Storage Tanks Total | 6.7 |
| Loading Rack | |
| Gasoline Loading | 248.0 |
| Distillate Fuel Loading | 0.90 |

Facility-wide VOCs emissions: 256 Tons per year

Facility-wide emissions = Storage Tank Emissions + Gasoline Loading Emissions + Distillate Fuel Loading Emissions

Equipment leak fugitives 0.344 T/yr, this value was taken from page 5-2, 1998 application update

Note: Distillate Fuel Storage Tanks and all tanks other than the gasoline storage tanks were taken from Tesoro's (then Amoco's) Tier I OP application update, dated September 22, 1998. That submittal utilized TANKS 3.1 to estimate all storage tank emissions. TANKS 4.07 was used to estimate gasoline storage tank emissions

The term "petroleum products" applies to tanks that are allowed to store either gasoline or distillate fuels. The worst case product for potential to emit estimates is gasoline and that liquid is used in these estimates.

This is not a "designated" facility as defined by IDAPA 58.01.01.006.27 because it has a storage capacity of less than 12.6 million U.S gallons. of storage capacity.

For major source PTE determination of VOCs, fugitive emissions do not count toward that PTE value.

Tesoro West Coast Company Burley, Idaho Facility
 Facility Description: Bulk Gasoline and Distillate Fuel Distribution Terminal

Sources of Information:
 Registration Fee Submittal for 2001 Submittal (which is for the calendar year 2000), submitted by the Amoco Oil Co., dated 9/7/01.
 That submittal was based on emissions estimates that used TANKS 4.0 software, from EPA.

Scaling Factor = Annual Allowable Gasoline Throughput (gal/yr) as Limited by 40 CFR 63.420 Reporting / Calendar Year 2000 Actual Throughput (gal/yr)

Potential Emissions = Calendar Year 2000 Actual Throughput (gal/yr) * Scaling Factor (dimensionless)

Gasoline Throughputs

| | Loading Rack | Tank 1001 | Tank 1002 |
|----------------------------------|--------------|-----------|-----------|
| Potential Throughput (MM gal/yr) | 124.15 | 124.15 | 124.15 |
| 2000 Throughput (MM gal/yr) | 20.27 | 3.493 | 16.777 |
| Scaling Factor | 6.12 | 35.54 | 7.40 |

| Emissions Source | Benzene | Ethyl-Benzene | Hexane (-n) | Naphthalene | Toluene | 2, 2, 4 Trimethylpentane | Xylene (-m) | Xylene (-o) | Xylene (-p) | Aggregated HAPs | |
|-------------------------------|---------|---------------|-------------|-------------|---------|--------------------------|-------------|-------------|-------------|-----------------|--------|
| | (lb/yr) | (lb/yr) | (lb/yr) | (lb/yr) | (lb/yr) | (lb/yr) | (lb/yr) | (lb/yr) | (lb/yr) | (lb/yr) | (T/yr) |
| 2000 Estimated Actuals | | | | | | | | | | | |
| Tank 1001 | 35.84 | 0.55 | 53.5 | 0.02 | 24.38 | 12.8 | 1.41 | 0.53 | 0.61 | 129.64 | 0.06 |
| Tank 1002 | 23.5 | 1.09 | 60.66 | 0.08 | 22.51 | 7.46 | 3.31 | 1.28 | 1.32 | 121.21 | 0.06 |
| Loading Rack | 524.81 | 16.15 | 1380.66 | 0 | 460.22 | 161.48 | 48.44 | 16.15 | 24.22 | 2632.13 | 1.32 |
| Gasoline Service | | | | | | | | | | | |
| Potential to Emit | | | | | | | | | | | |
| Tank 1001 | 1273.84 | 19.55 | 1901.52 | 0.71 | 866.53 | 454.94 | 50.11 | 18.84 | 21.68 | 4607.73 | 2.30 |
| Tank 1002 | 173.90 | 8.07 | 448.88 | 0.59 | 166.57 | 55.20 | 24.49 | 9.47 | 9.77 | 896.96 | 0.45 |
| Loading Rack | 3214.36 | 98.92 | 8456.29 | 0.00 | 2818.76 | 989.04 | 296.69 | 98.92 | 148.34 | 16121.31 | 8.06 |
| Gasoline Service | | | | | | | | | | | |
| Facility-wide Summary | | | | | | | | | | | |
| Gasoline Service PTE | 4662.11 | 126.53 | 10806.70 | 1.30 | 3851.86 | 1499.18 | 371.30 | 127.23 | 179.79 | 21826.00 | 10.81 |

Tank 1001 - Tesoro, Burley
Tesoro West Coast Company

Internal Floating Roof Tank
Pocatello, Idaho

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: Tank 1001 - Tesoro, Burley
City: Pocatello
State: Idaho
Company: Tesoro West Coast Company
Type of Tank: Internal Floating Roof Tank
Description: Internal Floating Roof
Potential emissions based on the annual throughput reported to EPA Region 10 for 40 CFR 63.420 HAPs limit
Gasoline makeup was not identical to Tesoro/Amoco application materials— used standard gasoline formulation plus 5% MTBE

→ FOR VOC calculation

Tank Dimensions

Diameter (ft): 70.00
Volume (gallons): 1,239,000.00
Turnovers: 100.20
Self Supp. Roof? (y/n): Y
No. of Columns: 0.00
Eff. Col. Diam. (ft): 0.00

Paint Characteristics

Internal Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Rim-Seal System

Primary Seal: Liquid-mounted
Secondary Seal: None

Deck Characteristics

Deck Fitting Category: Typical
Deck Type: Welded

Deck Fitting/Status

| | Quantity |
|---|----------|
| Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed | 1 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 |
| Roof Leg or Hanger Well/Adjustable | 21 |
| Sample Pipe or Well (24-in. Diam.)/Silt Fabric Seal 10% Open | 1 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Meteorological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0 Emissions Report - Detail Format Liquid Contents of Storage Tank

| Mixture/Component | Month | Daily Liquid Surf. Temperatures (deg F) | | | Liquid Bulk Temp. (deg F) | Vapor Pressures (psia) | | | Vapor Mol. Weight | Liquid Mass Fract. | Vapor Mass Fract. | Mol. Weight | Basis for Vapor Pressure Calculations |
|--------------------------------|-------|--|-------|-------|------------------------------------|------------------------|------|------|-------------------------|--------------------------|-------------------------|----------------|--|
| | | Avg. | Min. | Max. | | Avg. | Min. | Max. | | | | | |
| Gasoline (RVP 10) | All | 48.21 | 41.93 | 54.49 | 46.37 | 4.1037 | N/A | N/A | 86.0000 | | | 92.00 | Option 4: RVP=10, ASTM Slope=3 |
| 1,2,4-Trimethylbenzene | | | | | | 0.0128 | N/A | N/A | 120.1900 | 0.0250 | 0.0001 | 120.19 | Option 2: A=7.04383, B=1573.267, C=208.56 |
| Benzene | | | | | | 0.8343 | N/A | N/A | 78.1100 | 0.0180 | 0.0051 | 78.11 | Option 2: A=6.905, B=1211.033, C=220.79 |
| Cyclohexane | | | | | | 0.8722 | N/A | N/A | 84.1600 | 0.0024 | 0.0007 | 84.16 | Option 2: A=6.841, B=1201.53, C=222.65 |
| Ethylbenzene | | | | | | 0.0711 | N/A | N/A | 106.1700 | 0.0140 | 0.0003 | 106.17 | Option 2: A=6.975, B=1424.255, C=213.21 |
| Hexane (n) | | | | | | 1.3958 | N/A | N/A | 86.1700 | 0.0100 | 0.0047 | 86.17 | Option 2: A=6.876, B=1171.17, C=224.41 |
| Isooctane | | | | | | 0.3558 | N/A | N/A | 114.2200 | 0.0400 | 0.0048 | 114.22 | Option 1: VP40 = .213 VP50 = .387 |
| Isopropyl benzene | | | | | | 0.0324 | N/A | N/A | 120.2000 | 0.0050 | 0.0001 | 120.20 | Option 2: A=6.963, B=1480.793, C=207.78 |
| Methyl-tert-butyl ether (MTBE) | | | | | | 2.3960 | N/A | N/A | 88.1500 | 0.0500 | 0.0407 | 88.15 | Option 1: VP40 = 1.92 VP50 = 2.5 |
| Toluene | | | | | | 0.2283 | N/A | N/A | 92.1300 | 0.0700 | 0.0054 | 92.13 | Option 2: A=6.954, B=1344.8, C=219.48 |
| Unidentified Components | | | | | | 5.4675 | N/A | N/A | 84.8522 | 0.8958 | 0.9386 | 89.45 | |
| Xylene (m) | | | | | | 0.0590 | N/A | N/A | 106.1700 | 0.0700 | 0.0014 | 106.17 | Option 2: A=7.009, B=1482.268, C=215.11 |

TANKS 4.0 Emissions Report - Detail Format Detail Calculations (AP-42)

| | |
|--|---------------|
| Annual Emission Calculations | |
| Rim Seal Losses (lb): | 730.9733 |
| Seal Factor A (lb-mole/ft-yr): | 1.8000 |
| Seal Factor B (lb-mole/ft-yr (mph) ^{1/2}): | 0.3000 |
| Value of Vapor Pressure Function: | 0.0989 |
| Vapor Pressure at Daily Average Liquid Surface Temperature (psia): | 4.1037 |
| Tank Diameter (ft): | 70.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Withdrawal Losses (lb): | 334.4956 |
| Number of Columns: | 0.0000 |
| Effective Column Diameter (ft): | 0.0000 |
| Annual Net Throughput (gal/yr.): | 124,150,000.0 |
| | 000 |
| Shell Clingage Factor (bbl/1000 sqft): | 0.0015 |
| Average Organic Liquid Density (lb/gal): | 5.8000 |
| Tank Diameter (ft): | 70.0000 |
| Deck Fitting Losses (lb): | 1,527.8647 |
| Value of Vapor Pressure Function: | 0.0989 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Tot. Roof Fitting Loss Fact.(lb-mole/yr): | 234.1000 |
| Deck Seam Losses (lb): | 0.0000 |
| Deck Seam Length (ft): | 0.0000 |
| Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr): | 0.0000 |
| Deck Seam Length Factor(ft/sqft): | 0.0000 |
| Tank Diameter (ft): | 70.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |

| Deck Fitting/Status | Quantity | Deck Fitting Loss Factors | | m | Losses (lb.) |
|---|----------|---------------------------|--------------------------------------|------|--------------|
| | | KFa (lb-mole/yr) | KFb (lb-mole/yr mph ^{1/2}) | | |
| Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed | 1 | 36.00 | 5.90 | 1.20 | 234.9557 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 | 14.00 | 5.40 | 1.10 | 91.3717 |
| Roof Leg or Hanger Well/Adjustable | 21 | 7.90 | 0.00 | 0.00 | 1,082.7542 |
| Sample Pipe or Well (24-in. Diam.)/Silt Fabric Seal 10% Open | 1 | 12.00 | 0.00 | 0.00 | 78.3186 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 | 6.20 | 1.20 | 0.94 | 40.4646 |

Total Losses (lb): 2,593.3336

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

| Components | Losses(lbs) | | | | Total Emissions |
|--------------------------------|---------------|-----------------|-------------------|----------------|-----------------|
| | Rim Seal Loss | Withdrawal Loss | Deck Fitting Loss | Deck Seam Loss | |
| Gasoline (RVP 10) | 730.97 | 334.50 | 1,527.86 | 0.00 | 2,593.33 |
| Hexane (-n) | 3.47 | 3.34 | 7.24 | 0.00 | 14.05 |
| Benzene | 3.73 | 6.02 | 7.79 | 0.00 | 17.54 |
| Isooctane | 3.53 | 13.38 | 7.39 | 0.00 | 24.30 |
| Toluene | 3.93 | 23.41 | 8.22 | 0.00 | 35.57 |
| Ethylbenzene | 0.25 | 4.68 | 0.52 | 0.00 | 5.45 |
| Xylene (-m) | 1.03 | 23.41 | 2.14 | 0.00 | 26.58 |
| Isopropyl benzene | 0.04 | 1.67 | 0.08 | 0.00 | 1.80 |
| Methyl-tert-butyl ether (MTBE) | 29.75 | 16.72 | 62.17 | 0.00 | 108.64 |
| 1,2,4-Trimethylbenzene | 0.08 | 8.36 | 0.16 | 0.00 | 8.60 |
| Cyclohexane | 0.52 | 0.80 | 1.09 | 0.00 | 2.41 |
| Unidentified Components | 684.66 | 232.68 | 1,431.05 | 0.00 | 2,348.39 |

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: Tank 1002 - Tesoro, Burley
City: Pocatello
State: Idaho
Company: Tesoro West Coast Company
Type of Tank: Internal Floating Roof Tank
Description: Internal Floating Roof
Potential emissions based on the annual throughput reported to EPA Region 10 for 40 CFR 63.420 HAPs limit
Gasoline makeup was not identical to Tesoro/Amoco application materials— used standard gasoline formulation plus 5% MTBE

Tank Dimensions

Diameter (ft): 85.00
Volume (gallons): 2,037,000.00
Turnovers: 60.95
Self Supp. Roof? (y/n): Y
No. of Columns: 0.00
Eff. Col. Diam. (ft): 0.00

Paint Characteristics

Internal Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Rim-Seal System

Primary Seal: Liquid-mounted
Secondary Seal: None

Deck Characteristics

Deck Fitting Category: Typical
Deck Type: Welded

Deck Fitting/Status

| | Quantity |
|---|----------|
| Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed | 1 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 |
| Roof Leg or Hanger Well/Adjustable | 26 |
| Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open | 1 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |

Tank 1002 - Tesoro, Burley
Tesoro West Coast Company

Internal Floating Roof Tank
Pocatello, Idaho

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Meteorological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0 Emissions Report - Detail Format Liquid Contents of Storage Tank

| Mixture/Component | Month | Daily Liquid Surf. Temperatures (deg F) | | | Liquid Bulk Temp. (deg F) | Vapor Pressures (psia) | | | Vapor Mol. Weight | Liquid Mass Fract. | Vapor Mass Fract. | Mol. Weight | Basis for Vapor Pressure Calculations |
|--------------------------------|-------|--|-------|-------|------------------------------------|------------------------|------|------|-------------------------|--------------------------|-------------------------|----------------|--|
| | | Avg. | Min. | Max. | | Avg. | Min. | Max. | | | | | |
| Gasoline (RVP 10) | All | 48.21 | 41.93 | 54.49 | 48.37 | 4.1037 | N/A | N/A | 66.0000 | | | 92.00 | Option 4: RVP=10, ASTM Slope=3 |
| 1,2,4-Trimethylbenzene | | | | | | 0.0128 | N/A | N/A | 120.1900 | 0.0250 | 0.0001 | 120.19 | Option 2: A=7.04383, B=1573.267, C=208.56 |
| Benzene | | | | | | 0.8343 | N/A | N/A | 78.1100 | 0.0180 | 0.0051 | 78.11 | Option 2: A=6.905, B=1211.033, C=220.79 |
| Cyclohexane | | | | | | 0.8722 | N/A | N/A | 84.1600 | 0.0024 | 0.0007 | 84.16 | Option 2: A=6.841, B=1201.53, C=222.65 |
| Ethylbenzene | | | | | | 0.0711 | N/A | N/A | 106.1700 | 0.0140 | 0.0003 | 106.17 | Option 2: A=6.975, B=1424.255, C=213.21 |
| Hexane (-n) | | | | | | 1.3958 | N/A | N/A | 86.1700 | 0.0100 | 0.0047 | 86.17 | Option 2: A=6.876, B=1171.17, C=224.41 |
| Isooctane | | | | | | 0.3558 | N/A | N/A | 114.2200 | 0.0400 | 0.0048 | 114.22 | Option 1: VP40 = .213 VP50 = .387 |
| Isopropyl benzene | | | | | | 0.0324 | N/A | N/A | 120.2000 | 0.0050 | 0.0001 | 120.20 | Option 2: A=6.963, B=1480.793, C=207.78 |
| Methyl-tert-butyl ether (MTBE) | | | | | | 2.3960 | N/A | N/A | 88.1500 | 0.0500 | 0.0407 | 88.15 | Option 1: VP40 = 1.92 VP50 = 2.5 |
| Toluene | | | | | | 0.2263 | N/A | N/A | 92.1300 | 0.0700 | 0.0054 | 92.13 | Option 2: A=6.954, B=1344.8, C=219.48 |
| Unidentified Components | | | | | | 5.4675 | N/A | N/A | 64.8522 | 0.8958 | 0.9366 | 89.45 | |
| Xylene (-m) | | | | | | 0.0560 | N/A | N/A | 106.1700 | 0.0700 | 0.0014 | 106.17 | Option 2: A=7.009, B=1462.266, C=215.11 |

TANKS 4.0 Emissions Report - Detail Format Detail Calculations (AP-42)

| | |
|--|---------------|
| Annual Emission Calculations | |
| Rim Seal Losses (lb): | 867.6104 |
| Seal Factor A (lb-mole/ft-yr): | 1.6000 |
| Seal Factor B (lb-mole/ft-yr (mph)/in): | 0.3000 |
| Value of Vapor Pressure Function: | 0.0989 |
| Vapor Pressure at Daily Average Liquid Surface Temperature (psia): | 4.1037 |
| Tank Diameter (ft): | 85.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 86.0000 |
| Product Factor: | 1.0000 |
| Withdrawal Losses (lb): | 275.4669 |
| Number of Columns: | 0.0000 |
| Effective Column Diameter (ft): | 0.0000 |
| Annual Net Throughput (gal/yr): | 124,150,000.0 |
| Shell Clingage Factor (bbl/1000 sqft): | 0.0015 |
| Average Organic Liquid Density (lb/gal): | 5.6000 |
| Tank Diameter (ft): | 85.0000 |
| Deck Fitting Losses (lb): | 1,785.8633 |
| Value of Vapor Pressure Function: | 0.0989 |
| Vapor Molecular Weight (lb/lb-mole): | 86.0000 |
| Product Factor: | 1.0000 |
| Tot. Roof Fitting Loss Fact. (lb-mole/yr): | 273.6000 |
| Deck Seam Losses (lb): | 0.0000 |
| Deck Seam Length (ft): | 0.0000 |
| Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr): | 0.0000 |
| Deck Seam Length Factor (ft/sqft): | 0.0000 |
| Tank Diameter (ft): | 85.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 86.0000 |
| Product Factor: | 1.0000 |

| Deck Fitting/Status | Quantity | KFs (lb-mole/yr) | Deck Fitting Loss Factors | | m | Losses (lb.) |
|--|----------|------------------|---------------------------|--|------|--------------|
| | | | KFs (lb-mole/yr mph/in) | | | |
| Access Hatch (24-in. Diam./Unbolted Cover, Ungasketed) | 1 | 36.00 | 5.90 | | 1.20 | 234.9557 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 | 14.00 | 5.40 | | 1.10 | 91.3717 |
| Roof Leg or Hanger Well/Adjustable | 26 | 7.90 | 0.00 | | 0.00 | 1,340.5528 |
| Sample Pipe or Well (24-in. Diam./Silt Fabric Seal 10% Open | 1 | 12.00 | 0.00 | | 0.00 | 78.3186 |
| Vacuum Breaker (10-in. Diam./Weighted Mech. Actuation, Gask. | 1 | 6.20 | 1.20 | | 0.94 | 40.4648 |

Total Losses (lb): 2,948.7407

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

| Components | Losses(lbs) | | | | Total Emissions |
|--------------------------------|---------------|-----------------|-------------------|----------------|-----------------|
| | Rim Seal Loss | Withdrawal Loss | Deck Fitting Loss | Deck Seam Loss | |
| Gasoline (RVP 10) | 887.61 | 275.47 | 1,785.66 | 0.00 | 2,948.74 |
| Hexane (-n) | 4.21 | 2.75 | 8.47 | 0.00 | 15.43 |
| Benzene | 4.53 | 4.96 | 9.11 | 0.00 | 18.59 |
| Isooctane | 4.29 | 11.02 | 8.63 | 0.00 | 23.94 |
| Toluene | 4.78 | 19.28 | 9.61 | 0.00 | 33.67 |
| Ethylbenzene | 0.30 | 3.86 | 0.60 | 0.00 | 4.76 |
| Xylene (-m) | 1.24 | 19.28 | 2.50 | 0.00 | 23.03 |
| Isopropyl benzene | 0.05 | 1.38 | 0.10 | 0.00 | 1.52 |
| Methyl-tert-butyl ether (MTBE) | 38.12 | 13.77 | 72.66 | 0.00 | 122.56 |
| 1,2,4-Trimethylbenzene | 0.09 | 6.89 | 0.13 | 0.00 | 7.17 |
| Cyclohexane | 0.63 | 0.66 | 1.27 | 0.00 | 2.56 |
| Unidentified Components | 831.37 | 191.61 | 1,672.52 | 0.00 | 2,695.50 |